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IS 10673 (1983): Sampling Plans and Procedures for Inspection by Attributes for Electronic Items [LITD 2: Reliability of Electronic and Electrical Components and Equipment]



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*Indian Standard*

**SAMPLING PLANS AND PROCEDURES FOR  
INSPECTION BY ATTRIBUTES FOR  
ELECTRONIC ITEMS**

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**INDIAN STANDARDS INSTITUTION**  
MANAK BHAVAN, 8 BAHADUR SHAH ZAFAR MARG  
NEW DELHI 110002

# Indian Standard

## SAMPLING PLANS AND PROCEDURES FOR INSPECTION BY ATTRIBUTES FOR ELECTRONIC ITEMS

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## *Indian Standard*

# SAMPLING PLANS AND PROCEDURES FOR INSPECTION BY ATTRIBUTES FOR ELECTRONIC ITEMS

## 0. FOREWORD

**0.1** This Indian Standard was adopted by the Indian Standards Institution on 26 September, 1983, after the draft finalized by the Reliability of Electronic and Electrical Components and Equipment Sectional Committee had been approved by the Electronics and Telecommunication Division Council.

**0.2** This standard provides the tables from which sampling plans can be selected for inspection by attributes. All the plans given in this standard require that the lot quality should be specified in terms of fraction (or percentage) defective. The plans are sufficiently flexible to meet a wide variety of quality requirements and administrative and technical conditions.

**0.3** The electronic industry world-over have been using MIL-STD-105 'Military Standard on sampling procedures and tables for inspection by attributes' brought out by Department of Defence, USA; particularly its 1963 version has been accepted in toto in IEC Standard 410 'Sampling plans and procedures for inspection by attributes for electronic items' brought out by International Electrotechnical Commission and in ISO 2859 'Sampling procedures and tables for inspection by attributes' brought out by International Organization for Standardization, not only for electronic items but also for all other products.

**0.4** The differences between the ISO/IEC standard and IS : 2500 ( Part 1 )-1973\* relate to the batch sizes, switching rules, sampling plans and procedures for tightened inspection and reduced inspection in addition to lower

AQLs and special inspection levels which are required for electronic items. As it has not been found practicable to reconcile the basic differences, Reliability of Electronic and Electrical Components and Equipment Sectional Committee decided that a separate standard, based on IEC Publication 410 to deal with the sampling plans and procedures for electronic items, should be published. The position of this standard may be reviewed at the time of revision of IS : 2500 ( Part 1 ) - 1973\*.

**0.5** With a view to facilitating reference to this standard, an index of terms with special meanings is given in Appendix A.

**0.6** This standard is largely based on IEC Publication 410 ( 1973 ) 'Sampling plans and procedures for inspection by attributes' issued by the International Electrotechnical Commission ( IEC ).

**0.7** This standard is one of a series of Indian Standards on reliability of electronic and electrical components and equipment. A list of standards published so far in this series is given on page 66.

**0.8** For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test, shall be rounded off in accordance with IS : 2-1960†. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

\*Sampling inspection tables : Part 1 Inspection by attributes and by count of defects ( *first revision* ).

†Rules for rounding off numerical values ( *revised* ).

## 1. SCOPE

**1.1** This standard covers sampling plans and procedures for inspection by attributes for electronic items.

**NOTE** — When specified by the responsible authority, this standard shall be called up in the specification, contract, inspection instructions or other documents and the provisions set forth herein shall govern. The 'responsible authority' shall be designated in one of the above documents. The responsible authority may be the customer.

## 2. APPLICATION

**2.1** Sampling plans designated in this standard are applicable, but not limited, to inspection of the following:

- a) End items,
- b) Components and raw materials,
- c) Operations,
- d) Materials in process,

- e) Supplies in storage,
- f) Maintenance operations,
- g) Data or records, and
- h) Administrative procedures.

**2.1.1** These plans are intended primarily to be used for a continuing series of lots or batches. The plans may also be used for the inspection of isolated lots or batches, but in this latter case, the user is cautioned to consult the operating characteristic curves to find a plan which will yield the desired protection ( *see 11.6* ).

### 3. GENERAL

**3.1 Inspection** — Inspection is the process of measuring, examining, testing or otherwise comparing the unit of product ( *see 3.3* ) with the requirements.

**3.2 Inspection by Attributes** — Inspection whereby either the unit of product is classified simply as defective or non-defective or the number of defects in the unit of product is counted, with respect to a given requirement or set of requirements.

**3.3 Unit of Product** — The thing inspected in order to determine its classification as defective or non-defective or to count the number of defects. It may be a single article, a pair, a set, a length, an area, an operation, a volume, a component of an end product, or the end product itself. The unit of product may or may not be the same as the unit of purchase, supply, production or shipment.

### 3.4 Classification of Defects and Defectives

**3.4.1 Method of Classifying Defects** — A classification of defects is the enumeration of possible defects of the unit of product classified according to their seriousness. A defect is any non-conformance of the unit of product to specified requirements.

Defects will normally be grouped into one or more of the classes specified in **3.4.1.1** to **3.4.1.3**, however, defects may be grouped into other classes, or into sub-classes within these classes.

**3.4.1.1 Critical defect** — A critical defect is a defect that judgment and experience indicate, is likely to result in hazardous or unsafe conditions for individuals using, maintaining or depending upon the product; or a defect that judgment and experience indicate, is likely to prevent performance of the function of a major end item such as a ship, aircraft, computer, medical equipment or telecommunication satellite.

NOTE — For a special provision relating to critical defects, *see 6.3*.

**3.4.1.2 Major defect** — A major defect is a defect, other than critical, that is likely to result in failure, or to reduce materially the usability of the unit of product for its intended purpose.

**3.4.1.3 Minor defect** — A minor defect is a defect that is not likely to reduce materially the usability of the unit of product for its intended purpose, or is a departure from established standards having little bearing on the effective use or operation of the unit.

**3.4.2 Method of Classifying Defectives** — A defective is a unit of product which contains one or more defects. Defectives will usually be classified as follows.

**3.4.2.1 Critical defective** — A critical defective contains one or more critical defects and may also contain major and/or minor defects.

NOTE — For a special provision relating to critical defectives, *see 6.3*.

**3.4.2.2 Major defective** — A major defective contains one or more major defects and may also contain minor defects but contains no critical defect.

**3.4.2.3 Minor defective** — A minor defective contains one or more minor defects but contains neither critical nor major defect.

### 3.5 Percent Defective and Defects per Hundred Units

**3.5.1 Expression of Non-conformance** — The extent of non-conformance of product shall be expressed either in terms of percent defective or in terms of defects per hundred units.

**3.5.2 Percent Defective** — The percent defective of any given quantity of units of product is one hundred times the number of defective units of product contained therein divided by the total number of units of product, that is:

$$\text{Percent defective} = \frac{\text{Number of defectives}}{\text{Number of units inspected}} \times 100$$

**3.5.3 Defects Per Hundred Units** — The number of defects per hundred units of any given quantity of units of product is one hundred times the number of defects contained therein ( one or more defects being possible in any unit of product ) divided by the total number of units of product, that is:

$$\text{Defects per hundred units} = \frac{\text{Number of defects}}{\text{Number of units inspected}} \times 100$$

### 4. ACCEPTABLE QUALITY LEVEL ( AQL )

**4.1 Use** — The AQL, together with the sample size code letter, is used for indexing the sampling plans provided herein.

**4.2 Acceptable Quality Level ( AQL )** — The AQL is the maximum percent defective ( or the maximum number of defects per hundred units ) that, for purposes of sampling inspections, can be considered satisfactory as a process average ( *see* 11.2 ).

**4.3 Note on the Meaning of AQL** — When a consumer designates some specific value of AQL for a certain defect or group of defects, he indicates to the supplier that his ( the consumer's ) acceptance sampling plan will accept the great majority of the lots or batches that the supplier submits, provided the process average level of percent defective ( or defects per hundred units ) in these lots or batches be no greater than the designated value of AQL. Thus, the AQL is a designated value of percent defective ( or defects per hundred units ) that the consumer indicates will be accepted most of the time by the acceptance sampling procedure to be used. The sampling plans provided herein are so arranged that the probability of acceptance at the designated AQL value depends upon the sample size, being generally higher for large samples than for small ones, for a given AQL. The AQL alone does not describe the protection to the consumer for individual lots or batches but more directly relates to what might be expected from a series of lots or batches, provided the steps indicated in this standard are taken. It is necessary to refer to the operating characteristic curve of the plan, to determine what protection the consumer will have.

**4.4 Limitation** — The designation of an AQL shall not imply that the supplier has the right to supply knowingly any defective unit of product.

**4.5 Specifying AQLs** — The AQL to be used will be designated in the contract or by the responsible authority. Different AQLs may be designated for groups of defects considered collectively, or for individual defects. An AQL for a group of defects may be designated in addition to AQLs for individual defects, or sub-groups, within that group. AQL values of 10 or less may be expressed either in percent defective or in defects per hundred units; those over 10 shall be expressed in defects per hundred units only.

**4.6 Preferred AQLs** — The values of AQLs given in these tables are known as preferred AQLs. If, for any product, an AQL be designated other than a preferred AQL, these tables are not applicable.

## 5. SUBMISSION OF PRODUCT

**5.1 Lot or Batch** — The term 'lot' or 'batch' shall mean ' inspection batch ', that is, a collection of units of product from which a sample is to

be drawn and inspected to determine conformance with the acceptability criteria, and may differ from a collection of units designated as a lot or batch for other purposes ( for example, production, shipment, etc ).

**5.2 Formation of Lots or Batches** — The product shall be assembled into identifiable lots, sub-lots, batches, or in such other manner as may be prescribed ( *see* 5.4 ). Each lot or batch shall, as far as is practicable, consist of units of product of a single type, grade, class, size and composition, manufactured under essentially the same conditions and at essentially the same time.

**5.3 Lot or Batch Size** — The lot or batch size is the number of units of product in a lot or batch.

**5.4 Presentation of Lots or Batches** — The formation of lots or batches, lot or batch size, and the manner in which each lot or batch is to be presented and identified by the supplier shall be designated or approved by the responsible authority. As necessary, the supplier shall provide adequate and suitable storage space for each lot or batch, equipment needed for proper identification and presentation, and personnel for all handling of product required for drawing of samples.

## 6. ACCEPTANCE AND REJECTION

**6.1 Acceptability of Lots or Batches** — Acceptability of a lot or batch will be determined by the use of a sampling plan or plans associated with the designated AQL or AQLs.

**6.2 Defective Units** — The right is reserved to reject any unit of product found defective during inspection whether that unit of product forms part of a sample or not, and whether the lot or batch as a whole is accepted or rejected. Rejected units may be repaired or corrected and resubmitted for inspection with the approval of, and in the manner specified by, the responsible authority.

**6.3 Special Reservation for Critical Defects** — The supplier may be required at the discretion of the responsible authority to inspect every unit of the lot or batch for critical defects. The right is reserved to inspect every unit submitted by the supplier for critical defects, and to reject the lot or batch immediately, when a critical defect is found. The right is reserved also to sample, for critical defects, every lot or batch submitted by the supplier and to reject any lot or batch if a sample drawn therefrom is found to contain one or more critical defects.

**6.4 Resubmitted Lots or Batches** — Lots or batches found unacceptable shall be resubmitted for reinspection only after all units are re-examined or retested and all defective units

are removed or defects corrected. The responsible authority shall determine whether normal or tightened inspection shall be used, and whether reinspection shall include all types or classes of defects or only the particular types or classes of defects which caused initial rejection.

## 7. DRAWING OF SAMPLES

**7.1 Sample** — A sample consists of one or more units of product drawn from a lot or batch, the units of the sample being selected at random without regard to their quality. The number of units of product in the sample is the sample size.

**7.2 Representative Sampling** — When appropriate, the number of units in the sample shall be selected in proportion to the size of the sub-lots or sub-batches, or parts of the lot or batch, identified by some rational criterion. When representative sampling is used, the units from each part of the lot or batch shall be selected at random.

**7.3 Time of Sampling** — Samples may be drawn after all the units comprising the lot or batch have been assembled, or samples may be drawn during assembly of the lot or batch.

**7.4 Double or Multiple Sampling** — When double or multiple sampling is to be used, each sample shall be selected over the entire lot or batch.

## 8. NORMAL, TIGHTENED AND REDUCED INSPECTION

**8.1 Initiation of Inspection** — Normal inspection will be used at the start of inspection unless otherwise directed by the responsible authority.

**8.2 Continuation of Inspection** — Normal, tightened or reduced inspection shall continue unchanged for each class of defects or defectives on successive lots or batches except where the switching procedures given below require a change. The switching procedures shall be applied to each class of defects or defectives independently.

### 8.3 Switching Procedures

**8.3.1 Normal to Tightened** — When normal inspection is in effect, tightened inspection shall be instituted when 2 out of 5 consecutive lots or batches have been rejected on original inspection (that is, ignoring resubmitted lots or batches for this procedure).

**8.3.2 Tightened to Normal** — When tightened inspection is in effect, normal inspection shall be instituted when 5 consecutive lots or batches have been considered acceptable on original inspection.

**8.3.3 Normal to Reduced** — When normal inspection is in effect, reduced inspection shall be instituted provided that all of the following conditions are satisfied:

- a) The preceding 10 lots or batches (or more, as indicated by the note under Table 8) have been submitted to normal inspection and none has been rejected on original inspection.
- b) The total number of defectives (or defects) in the samples from the preceding 10 lots or batches [or such other number as was used for condition (a) above] is equal to or less than the applicable number given in Table 8. If double or multiple sampling is in use, all samples inspected should be included, not 'first' samples only.
- c) Production is at a steady rate.
- d) Reduced inspection is considered desirable by the responsible authority.

**8.3.4 Reduced to Normal** — When reduced inspection is in effect, normal inspection shall be instituted if any of the following occur on original inspection:

- a) A lot or batch is rejected,
- b) A lot or batch is considered acceptable under the procedures of 10.1.4,
- c) Production becomes irregular or delayed, and
- d) Other conditions warrant that normal inspection shall be instituted.

**8.4 Discontinuation of Inspection** — In the event that 10 consecutive lots or batches remain on tightened inspection (or such other number as may be designated by the responsible authority), inspection under the provisions of this document should be discontinued pending action to improve the quality of submitted material.

## 9. SAMPLING PLANS

**9.1 Sampling Plan** — A sampling plan indicates the number of units of product from each lot or batch which are to be inspected (sample size or series of sample sizes) and the criteria for determining the acceptability of the lot or batch (acceptance and rejection numbers).

**9.2 Inspection Level** — The inspection level determines the relationship between the lot or batch size and the sample size. The inspection level to be used for any particular requirement will be prescribed by the responsible authority. Three inspection levels, I, II and III, are given in Table 1 for general use. Unless otherwise specified, Inspection Level II will be used. However, Inspection Level I may be

specified when less determination is needed, or Level III may be specified for greater discrimination. Four additional special levels, S-1, S-2, S-3, and S-4 are given in the same table and may be used where relatively small sample sizes are necessary and large sampling risks may or shall be tolerated.

NOTE — In the designation of inspection levels S-1 to S-4, care shall be exercised to avoid AQLs inconsistent with these inspection levels.

**9.3 Code Letters** — Sample sizes are designated by code letters. Table 1 shall be used to find the applicable code letter for the particular lot or batch size and the prescribed inspection level.

**9.4 Obtaining Sampling Plan** — The AQL and the code letter shall be used to obtain the sampling plan from Tables 2, 3 or 4. When no sampling plan is available for a given combination of AQL and code letter, the tables direct the user to a different letter. The sample size to be used is given by the new code letter, not by the original letter. If this procedure leads to different sample sizes for different classes of defects, the code letter corresponding to the largest sample size derived may be used for all classes of defects when designated or approved by the responsible authority. As an alternative to a single sampling plan with an acceptance number of 0, the plan with an acceptance number of 1, with its correspondingly larger sample size for a designated AQL (where available), may be used when designated or approved by the responsible authority.

**9.5 Types of Sampling Plans** — Three types of sampling plans (single, double and multiple) are given in Tables 2, 3 and 4, respectively. When several types of plans are available for a given AQL and code letter, any one may be used. A decision as to type of plan, either single, double or multiple, when available for a given AQL and code letter, will usually be based upon the comparison between the administrative difficulty and the average sample sizes of the available plans. The average sample size of multiple plans is less than for double (except in the case corresponding to single acceptance number 1) and both of these are always less than a single sample size. Usually, the administrative difficulty for single sampling and the cost per unit of the sample are less than for double or multiple.

## 10. DETERMINATION OF ACCEPTABILITY

**10.1 Percent Defective Inspection** — To determine acceptability of a lot or batch under percent defective inspection, the applicable sampling plan shall be used in accordance with 10.1.1, 10.1.2, 10.1.3 and 10.1.4.

**10.1.1 Single Sampling Plan** — The number of sample units inspected shall be equal to the sample size given by the plan. If the number of defectives found in the sample is equal to or less than the acceptance number, the lot or batch shall be considered acceptable. If the number of defectives is equal to or greater than the rejection number, the lot or batch shall be rejected.

**10.1.2 Double Sampling Plan** — The number of sample units inspected shall be equal to the first sample size given by the plan. If the number of defectives found in the first sample is equal to or less than the first acceptance number, the lot or batch shall be considered acceptable. If the number of defectives found in the first sample is equal to or greater than the first rejection number, the lot or batch shall be rejected. If the number of defectives found in the first sample is between the first acceptance and rejection numbers, a second sample of the size given by the plan shall be inspected. The number of defectives found in the first and second samples shall be accumulated. If the cumulative number of defectives is equal to or less than the second acceptance number, the lot or batch shall be considered acceptable. If the cumulative number of defectives is equal to or greater than the second rejection number, the lot or batch shall be rejected.

**10.1.3 Multiple Sample Plan** — Under multiple sampling, the procedure shall be similar to that specified in 10.1.2, except that the number of successive samples required to reach a decision may be more than two.

**10.1.4 Special Procedure for Reduced Inspection** — Under reduced inspection, the sampling procedure may terminate without either acceptance or rejection criteria having been met. In these circumstances, the lot or batch will be considered acceptable, but normal inspection will be reinstated starting with the next lot or batch [see 8.3.4 (b)].

**10.2 Defects per Hundred Units Inspection** — To determine the acceptability of a lot or batch under defects per hundred units inspection, the procedure specified for percent defective inspection above shall be used, except that the word 'defects' shall be substituted for 'defectives'.

## 11. SUPPLEMENTARY INFORMATION

**11.1 Operating Characteristic (OC) Curves** — The operating characteristic curves for normal inspection, shown in Table 10, indicate the percentage of lots or batches which may be expected to be accepted under the various sampling plans for a given process quality. The curves shown are for single sampling; curves for double and multiple sampling are matched as closely as practicable. The OC curves

shown for AQLs greater than 10 are based on the Poisson distribution and are applicable for defects per hundred units inspection, those for AQLs of 10 or less, and sample sizes of 80 or less are based on the binomial distribution and are applicable for percent defective inspection; those for AQLs of 10 or less and sample sizes larger than 80 are based on the Poisson distribution and are applicable either for defects per hundred units inspection or for percent defective inspection (the Poisson distribution being an adequate approximation to the binomial distribution under these conditions).

Tabulated values, corresponding to selected values of probabilities of acceptance ( $P_a$ , in percent) are given for each of the curves shown and, in addition, for tightened inspection, and for defects per hundred units for AQLs of 10 or less and sample sizes of 80 or less.

**11.2 Process Average** — The process average is the average percent defective or average number of defects per hundred units (whichever is applicable) of product submitted by the supplier for original inspection. Original inspection is the first inspection of a particular quantity of product as distinguished from the inspection of product which has been resubmitted after prior rejection.

**NOTE** — It may also be useful to calculate the estimated process average which is normally defined as  $EPA = 100$  multiplied by the number of defectives, or defects, in the samples from the most recent five consecutive batches and divided by the number of units of product in the samples from the same five batches. Resubmitted batches should not be included.

**11.3 Average Outgoing Quality (AOQ)** — The AOQ is the average quality of outgoing product including all accepted lots or batches, plus all rejected lots or batches after the rejected lots or batches have been effectively 100 percent inspected.

**11.4 Average Outgoing Quality Limit (AOQL)** — The AOQL is the maximum of

the AOQs for all possible incoming qualities for a given acceptance sampling plan. AOQL values are given in Table 5A for each of the single sampling plans for normal inspection and in Table 5B for each of the single sampling plans for tightened inspection.

**11.5 Average Sample Size Curves** — Average sample size curves for double and multiple sampling are in Table 9. These show the average sample sizes which may be expected to occur under the various sampling plans for a given process quality. The curves assume no curtailment of inspection and are approximate to the extent that they are based upon the Poisson distribution, and that the sample sizes for double and multiple sampling are assumed to be  $0.631n$  and  $0.25n$  respectively, where  $n$  is the equivalent single sample size.

**11.6 Limiting Quality Protection** — The sampling plans and associated procedures given in this standard were designed for use where the units of product are produced in a continuing series of lots or batches over a period of time. However, if the lot or batch is of an isolated nature, it is desirable to limit the selection of sampling plans to those, associated with a designated AQL value, that provide not less than a specified limiting quality protection. Sampling plans for this purpose may be selected by choosing a limiting quality (LQ) and a consumer's risk to be associated with it. Tables 6 and 7 give values of LQ for the commonly used consumer's risks of 10 percent and 5 percent respectively. If a different value of consumer's risk is required, the OC curves and their tabulated values may be used.

The concept of LQ may also be useful in specifying the AQL and inspection levels for a series of lots or batches, thus fixing minimum sample size where there is some reason for avoiding (with more than a given consumer's risk) more than a limiting proportion of defectives (or defects) in any single lot or batch.

TABLE 1 SAMPLE SIZE AND CODE LETTERS  
(Clauses 9.2 and 9.3)

LOT OR BATCH SIZE			SPECIAL INSPECTION LEVELS				GENERAL INSPECTION LEVELS		
			S-1	S-2	S-3	S-4	I	II	III
2	TO	8	A	A	A	A	A	A	B
9	TO	15	A	A	A	A	A	B	C
16	TO	25	A	A	B	B	B	C	D
26	TO	50	A	B	B	C	C	D	E
51	TO	90	B	B	C	C	C	E	F
91	TO	150	B	B	C	D	D	F	G
151	TO	280	B	C	D	E	E	G	H
281	TO	500	B	C	D	E	F	H	J
501	TO	1 200	C	C	E	F	G	J	K
1 201	TO	3 200	C	D	E	G	H	K	L
3 201	TO	10 000	C	D	F	G	J	L	M
10 001	TO	35 000	C	D	F	H	K	M	N
35 001	TO	150 000	D	E	G	J	L	N	P
150 001	TO	500 000	D	E	G	J	M	P	Q
500 001	and over		D	E	H	K	N	Q	R

TABLE 2A SINGLE SAMPLING PLANS FOR NORMAL INSPECTION (MASTER TABLE)  
(Clauses 9.4 and 9.5)

SAMPLE SIZE CODE LETTER	SAMPLE SIZE	ACCEPTABLE QUALITY LEVELS (NORMAL INSPECTION)																																																																																																																																																																																												
		0.010	0.015	0.025	0.040	0.065	0.10	0.15	0.25	0.40	0.65	1.0	1.5	2.5	4.0	6.5	10	15	25	40	65	100	150	250	400	650	1000																																																																																																																																																																			
		Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re																																																																																																																																													
A	2																																																																																																																																																																																													
B	3																																																																																																																																																																																													
C	5																																																																																																																																																																																													
D	8																																																																																																																																																																																													

↓ = Use first sampling plan below arrow. If sample size equals or exceeds lot or batch size, do 100 percent inspection

↑ = Use first sampling plan above arrow

Ac = Acceptance number

Re = Rejection number



TABLE 2B SINGLE SAMPLING PLANS FOR TIGHTENED INSPECTION (MASTER TABLE)  
(Clauses 9.4 and 9.5)

SAMPLE SIZE CODE LETTER	SAMPLE SIZE	ACCEPTABLE QUALITY LEVELS (TIGHTENED INSPECTION)																											
		0.010	0.015	0.025	0.040	0.065	0.10	0.15	0.25	0.40	0.65	1.0	1.5	2.5	4.0	6.5	10	15	25	40	65	100	150	250	400	650	1000		
		Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re
A	2	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
B	3	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
C	5	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
D	8	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
E	13	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
F	20	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
G	32	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
H	50	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
J	80	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
K	125	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
L	200	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
M	315	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
N	500	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
P	800	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
O	1250	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
R	2000	0	1	↑	↓	1	2	2	3	3	4	5	6	8	9	12	13	18	19	↑	↑	↑	↑	↑	↑	↑	↑	↑	
S	3150	0	1	↑	↓	1	2	2	3	3	4	5	6	8	9	12	13	18	19	↑	↑	↑	↑	↑	↑	↑	↑	↑	

↓ = Use first sampling plan below arrow. If sampling size equals or exceeds lot or batch size do 100 percent inspection

↑ = Use first sampling plan above arrow

Ac = Acceptance number

Re = Rejection number

TABLE 2C SINGLE SAMPLING PLANS FOR REDUCED INSPECTION (MASTER TABLE)  
(Clauses 9.4 and 9.5)

SAMPLE SIZE CODE LETTER	SAMPLE SIZE	ACCEPTABLE QUALITY LEVELS (REDUCED INSPECTION)†																													
		0.010	0.015	0.025	0.040	0.065	0.10	0.15	0.25	0.40	0.65	1.0	1.5	2.5	4.0	6.5	10	15	25	40	65	100	150	250	400	650	1000				
		Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re		
A	2	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓			
B	2	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓			
C	2	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓			
D	3	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓			
E	5	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓			
F	8	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓			
G	13	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓			
H	20	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓			
J	32	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓			
K	50	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓			
L	80	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓			
M	125	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓			
N	200	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓			
P	315	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓			
Q	500	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓			
P	800	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓			

↓ = Use first sampling plan below arrow. If sample size equals or exceeds lot or batch size, do 100 percent inspection

↑ = Use first sampling plan above arrow

Ac = Acceptance number.

Re = Rejection number

† = If the acceptance number has been exceeded, but the rejection number has not been reached, accept the lot, but reinstate normal inspection (See 10.1.4)

**TABLE 3A DOUBLE SAMPLING PLANS FOR NORMAL INSPECTION (MASTER TABLE)**  
(Clauses 9.4 and 9.5)

SAMPLE SIZE CODE LETTER	SAMPLE	SAMPLE SIZE	CUMULATIVE SAMPLE SIZE	ACCEPTABLE QUALITY LEVELS (NORMAL INSPECTION)																									
				0.010	0.015	0.025	0.040	0.065	0.10	0.15	0.25	0.40	0.65	1.0	1.5	2.5	4.0	6.5	10	15	25	40	65	100	150	250	400	650	1000
				Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re
A				↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
B	FIRST	2	2	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
	SECOND	2	4	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
C	FIRST	3	3	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
	SECOND	3	6	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
D	FIRST	5	5	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
	SECOND	5	10	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
E	FIRST	8	8	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
	SECOND	8	16	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
F	FIRST	13	13	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
	SECOND	13	26	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
G	FIRST	20	20	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
	SECOND	20	40	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
H	FIRST	32	32	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
	SECOND	32	64	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
J	FIRST	50	50	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
	SECOND	50	100	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
K	FIRST	80	80	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
	SECOND	80	160	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
L	FIRST	125	125	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
	SECOND	125	250	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
M	FIRST	200	200	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
	SECOND	200	400	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
N	FIRST	315	315	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
	SECOND	315	630	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
P	FIRST	500	500	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
	SECOND	500	1000	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
Q	FIRST	800	800	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
	SECOND	800	1600	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
R	FIRST	1250	1250	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
	SECOND	1250	2500	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓

↓ = Use first sampling plan below arrow. If sample size equals or exceeds lot or batch size, do 100 percent inspection.

↑ = Use first sampling plan above arrow

Ac = Acceptance number

Re = Rejection number

• = Use corresponding single sampling plan (or alternatively, use double sampling plan below, when available).

TABLE 3B DOUBLE SAMPLING PLANS FOR TIGHTENED INSPECTION (MASTER TABLE)  
(Clauses 9.4 and 9.5)

SAMPLE SIZE CODE LETTER	SAMPLE	SAMPLE SIZE	CUMULA- TIVE SAMPLE SIZE	ACCEPTABLE QUALITY LEVELS (TIGHTENED INSPECTION)																									
				0.010	0.015	0.025	0.040	0.065	0.10	0.15	0.25	0.40	0.65	1.0	1.5	2.5	4.0	6.5	10	15	25	40	65	100	150	250	400	650	1000
				Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re
A				↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
B	FIRST	2	2																										
	SECOND	2	4																										
C	FIRST	3	3																										
	SECOND	3	6																										
D	FIRST	5	5																										
	SECOND	5	10																										
E	FIRST	8	8																										
	SECOND	8	16																										
F	FIRST	13	13																										
	SECOND	13	26																										
G	FIRST	20	20																										
	SECOND	20	40																										
H	FIRST	32	32																										
	SECOND	32	64																										
J	FIRST	50	50																										
	SECOND	50	100																										
K	FIRST	80	80																										
	SECOND	80	160																										
L	FIRST	125	125																										
	SECOND	125	250																										
M	FIRST	200	200																										
	SECOND	200	400																										
N	FIRST	315	315																										
	SECOND	315	630																										
P	FIRST	500	500																										
	SECOND	500	1000																										
Q	FIRST	800	800																										
	SECOND	800	1600																										
R	FIRST	1250	1250																										
	SECOND	1250	2500																										
S	FIRST	2000	2000																										
	SECOND	2000	4000																										



Use first sampling plan below arrow. If sample size equals or exceeds  
= lot or batch size, do 100 percent inspection



Use first sampling plan above arrow

Ac

= Acceptance number

Re

= Rejection number

•

= Use corresponding single sampling plan (or alternatively, use double sampling plan below, when available)

TABLE 3C DOUBLE SAMPLING PLANS FOR REDUCED INSPECTION (MASTER TABLE)  
(Clauses 9.4 and 9.5)

SAMPLE SIZE CODE LETTER	SAMPLE	SAMPLE SIZE	CUMULA- TIVE SAMPLE SIZE	ACCEPTABLE QUALITY LEVELS (REDUCED INSPECTION) †																																									
				0.010	0.015	0.025	0.040	0.065	0.10	0.15	0.25	0.40	0.65	1.0	1.5	2.5	4.0	6.5	10	15	25	40	65	100	150	250	400	650	1000																
				Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re
A				↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
B				↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
C				↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
D	FIRST	2	2	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
	SECOND	2	4	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
E	FIRST	3	3	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
	SECOND	3	6	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
F	FIRST	5	5	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
	SECOND	5	10	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
G	FIRST	8	8	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
	SECOND	8	16	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
H	FIRST	13	13	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
	SECOND	13	26	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
J	FIRST	20	20	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
	SECOND	20	40	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
K	FIRST	32	32	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
	SECOND	32	64	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
L	FIRST	50	50	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
	SECOND	50	100	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
M	FIRST	80	80	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
	SECOND	80	160	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
N	FIRST	125	125	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
	SECOND	125	250	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
P	FIRST	200	200	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
	SECOND	200	400	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
Q	FIRST	315	315	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
	SECOND	315	630	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
R	FIRST	500	500	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
	SECOND	500	1000	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓



= Use first sampling plan below arrow if sample size equals or exceeds lot or batch size, do 100 percent inspection.



= Use first sampling plan above arrow

Ac

= Acceptance number

Re

= Rejection number

•

= Use corresponding single sampling plan (or alternatively, use double sampling plan below, when available).

†

= If, after the second sample, the acceptance number has been exceeded, but the rejection has not been reached, accept the lot, but reinstate normal inspection (see 10.1.4)

TABLE 4A MULTIPLE SAMPLING PLANS FOR NORMAL INSPECTION(MASTER TABLE)  
(Clauses 9.4 and 9.5)

PLANS MULTIPLES—MULTIPLE NORMAL

SAMPLE SIZE CODE LETTER	SAMPLE SIZE	SAMPLE SIZE	CUMULA- TIVE SAMPLE SIZE	ACCEPTABLE QUALITY LEVELS (NORMAL INSPECTION)																																		
				0.010	0.015	0.025	0.040	0.065	0.10	0.15	0.25	0.40	0.65	1.0	1.5	2.5	4.0	6.5	10	15	25	40	65	100	150	250	400	650	1000									
				Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re
A																																						
B																																						
C																																						
D	FIRST SECOND THIRD FOURTH FIFTH SIXTH SEVENTH	2 2 2 2 2 2 2	2 6 8 10 12 14																																			
E	FIRST SECOND THIRD FOURTH FIFTH SIXTH SEVENTH	3 3 3 3 3 3 3	3 6 9 12 15 18 21																																			
F	FIRST SECOND THIRD FOURTH FIFTH SIXTH SEVENTH	5 5 5 5 5 5 5	5 10 15 20 25 30 35																																			
G	FIRST SECOND THIRD FOURTH FIFTH SIXTH SEVENTH	8 8 8 8 8 8 8	8 16 24 32 40 48 56																																			
H	FIRST SECOND THIRD FOURTH FIFTH SIXTH SEVENTH	13 13 13 13 13 13 13	13 26 39 52 65 78 91																																			
J	FIRST SECOND THIRD FOURTH FIFTH SIXTH SEVENTH	20 20 20 20 20 20 20	20 40 60 80 100 120 140																																			

↓ = Use first sampling plan below arrow (refer to continuation of table on following page, when necessary).  
If sample size equals or exceeds lot or batch size, do 100 percent inspection.

↑ = Use first sampling plan above arrow

Ac = Acceptance number

Re = Rejection number

• = Use corresponding single sampling plan (or alternatively, use multiple sampling plan below, where available).

++ = Use corresponding double sampling plan (or alternatively, use multiple sampling plan below, where available).

# = Acceptance not permitted at this sample size.

TABLE 4A MULTIPLE SAMPLING PLANS FOR NORMAL INSPECTION (MASTER TABLE) (Continued)

SAMPLE SIZE CODE LETTER	SAMPLE SIZE	CUMULA- TIVE SAMPLE SIZE	ACCEPTABLE QUALITY LEVELS (NORMAL INSPECTION)																											
			0.010	0.015	0.025	0.040	0.065	0.10	0.15	0.25	0.40	0.65	1.0	1.5	2.5	4.0	6.5	10	15	25	40	65	100	150	250	400	650	1 000		
			Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re
K	FIRST	32																												
	SECOND	32																												
	THIRD	32																												
	FOURTH	32																												
	FIFTH	32																												
	SIXTH	32																												
	SEVENTH	32																												
L	FIRST	50																												
	SECOND	50																												
	THIRD	50																												
	FOURTH	50																												
	FIFTH	50																												
	SIXTH	50																												
	SEVENTH	50																												
M	FIRST	80																												
	SECOND	80																												
	THIRD	80																												
	FOURTH	80																												
	FIFTH	80																												
	SIXTH	80																												
	SEVENTH	80																												
N	FIRST	125																												
	SECOND	125																												
	THIRD	125																												
	FOURTH	125																												
	FIFTH	125																												
	SIXTH	125																												
	SEVENTH	125																												
P	FIRST	200																												
	SECOND	200																												
	THIRD	200																												
	FOURTH	200																												
	FIFTH	200																												
	SIXTH	200																												
	SEVENTH	200																												
Q	FIRST	315																												
	SECOND	315																												
	THIRD	315																												
	FOURTH	315																												
	FIFTH	315																												
	SIXTH	315																												
	SEVENTH	315																												
R	FIRST	500																												
	SECOND	500																												
	THIRD	500																												
	FOURTH	500																												
	FIFTH	500																												
	SIXTH	500																												
	SEVENTH	500																												

↓ = Use first sampling plan below arrow. If sample size equals or exceeds lot or batch size, do 100 percent inspection

↑ = Use first sampling plan above arrow (refer to preceding page, when necessary)

Ac = Acceptance number

Re = Rejection number.

• = Use corresponding single sampling plan (or alternatively, use multiple plan below, when available).

# = Acceptance not permitted at this sample size.

**IS : 10673 - 1983**

## PLANS MULTIPLES—MULTIPLE TIGHTENED

↑ Use first sampling plan above arrow:

Re = Rejection number

- =Use corresponding single sampling plan (or alternatively, use multiple sampling plan below, where available).

.. = Use corresponding double sampling plan (or alternatively, use multiple sampling plan below, where available).

# = Acceptance not permitted at this sample size.



TABLE 4B MULTIPLE SAMPLING PLANS FOR TIGHTENED INSPECTION (MASTER TABLE) (Continued)

SAMPLE SIZE CODE LETTER	SAMPLE SIZE	SAMPLE SIZE	CUMULA- TIVE SAMPLE SIZE	ACCEPTABLE QUALITY LEVELS (TIGHTENED INSPECTION)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
				0.010		0.015		0.025		0.040		0.065		0.10		0.15		0.25		0.40		0.65		1.0		1.5		2.5		4.0		6.5		10		15		25		40		65		100		150		250		400		650		1000																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
				Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re

↓ = Use first sampling plan below arrow. If sample size equals or exceeds lot or batch size, do 100 percent inspection.  
 ↑ = Use first sampling plan above arrow (refer to preceding page, when necessary).  
 Ac = Acceptance number.  
 Re = Rejection number.

• = Use corresponding single sampling plan (or alternatively, use double sampling plan below, when available).  
 # = Acceptance not permitted at this sample size.

PLANS MULTIPLES - MULTIPLE TIGHTENED

↓ = Use first sampling plan below arrow (refer to continuation of table on following page, when necessary).  
 If sample size equals or exceeds lot or batch size, do 100 percent inspection.  
 ↑ = Use first sampling plan above arrow  
 Ac = Acceptance number.  
 Re = Rejection number.  
 • = Use corresponding single sampling plan (or alternatively, use multiple sampling plan below, when available).  
 ‡ = Acceptance not permitted at this sample size.  
 + = If, after the final sample, the acceptance number has been exceeded, but the rejection number has not been reached, accept the lot, but reinstate normal inspection (see 10.1.4)

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## PLANS MULTIPLES--MULTIPLE REDUCED

Use first sampling plan below arrow. If sample size equals or exceeds lot or batch size, do 100 percent inspection.

• = Use corresponding single sampling plan (or alternatively, use multiple sampling plan below, when available).

Use first sampling plan above arrow (refer to preceding page, when necessary).

Ac = Acceptance number.

Re = Rejection number.

# =Acceptance not permitted at this sample size.

† If, after the final sample, the acceptance number has been exceeded, but the rejection number has not been reached, accept the lot, but reinstate normal inspection (see 10.1.4)

TABLE 5A AVERAGE OUTGOING QUALITY LIMIT FACTORS FOR NORMAL INSPECTION (SINGLE SAMPLING)  
(Clause 11.4)

CODE LETTER	SAMPLE SIZE	ACCEPTABLE QUALITY LEVEL																																																				
		0.010	0.015	0.025	0.040	0.065	0.10	0.15	0.25	0.40	0.65	1.0	1.5	2.5	4.0	6.5	10	15	25	40	65	100	150	250	400	650	1 000																											
A	2																																																					
B	3																																																					
C	5																																																					
D	8																																																					
E	13																																																					
F	20																																																					
G	32																																																					
H	50																																																					
J	80																																																					
K	125																																																					
L	200																																																					
M	315																																																					
N	500																																																					
P	800																																																					
Q	1 250																																																					
R	2 000																																																					

NOTE - For the exact AOQL, the above values should be multiplied by

$$\left(1 - \frac{\text{sample size}}{\text{lot or batch size}}\right)$$

**TABLE 5B AVERAGE OUTGOING QUALITY LIMIT FACTORS FOR TIGHTENED INSPECTION (SINGLE SAMPLING)**  
(Clause 11.4)

CODE LETTER	SAMPLE SIZE	ACCEPTABLE QUALITY LEVEL																									
		0.010	0.015	0.025	0.040	0.065	0.10	0.15	0.25	0.40	0.65	1.0	1.5	2.5	4.0	6.5	10	15	25	40	65	100	150	250	400	650	1 000
A	2																			42	69	97	160	260	400	620	970
B	3															12			28	46	65	110	170	270	410	650	1 100
C	5														7.4			17	27	39	63	100	160	250	390	610	
D	8													4.6			11	17	24	40	64	99	160	240	380		
E	13												2.8			6.5	11	15	24	40	61	95	150	240			
F	20										1.8				4.2	6.9	9.7	16	26	40	62						
G	32										1.2			2.6	4.3	6.1	9.9	16	25	39							
H	50									0.74			1.7	2.7	3.9	6.3	10	16	25								
J	80								0.46			1.1	1.7	2.4	4.0	6.4	9.9	16									
K	125						0.29				0.67	1.1	1.6	2.5	4.1	6.4	9.9										
L	200					0.12	0.18			0.42	0.69	0.97	1.6	2.6	4.0	6.2											
M	315								0.27	0.44	0.62	1.0	1.6	2.5	3.9												
N	500			0.074				0.17	0.27	0.39	0.63	1.0	1.6	2.5													
P	800		0.046				0.11	0.17	0.24	0.40	0.64	0.99	1.6														
Q	1 250		0.029			0.067	0.11	0.16	0.25	0.41	0.64	0.99															
R	2 000	0.018			0.042	0.069	0.097	0.16	0.26	0.40	0.62																
S	3 150		0.027																								

**NOTE** - For the exact AOQL, the above values should be multiplied by

$$\left(1 - \frac{\text{Sample size}}{\text{lot or batch size}}\right)$$

TABLE 6A LIMITING QUALITY (IN PERCENT DEFECTIVE) FOR WHICH  $P_d = 10$  PERCENT  
(FOR NORMAL INSPECTION, SINGLE SAMPLING)  
(Clause 11.6)

CODE LETTER	SAMPLE SIZE	ACCEPTABLE QUALITY LEVEL															
		0.010	0.015	0.025	0.040	0.065	0.10	0.15	0.25	0.40	0.65	1.0	1.5	2.5	4.0	6.5	10
A	2	0.18	0.29	0.46	0.73	1.2	1.8	2.8	4.5	6.9	11	16	25	37	54	68	98
B	3																
C	5																
D	8																
E	13																
F	20																
G	32																
H	50																
J	80																
K	125																
L	200	0.18	0.29	0.46	0.73	1.2	1.8	2.8	4.5	6.9	11	16	25	37	54	68	98
M	315																
N	500																
P	800																
Q	1 250																
R	2 000																
S	3 150																
T	5 000																
U	8 000																
V	12 500																
W	20 000																
X	31 500																
Y	50 000																
Z	80 000																

LA (DEFECTIVES)  $P_d = 10.0$  PERCENT

TABLE 6B LIMITING QUALITY (IN DEFECTS PER HUNDRED UNITS) FOR WHICH  $P_a=10$  PERCENT  
(For normal inspection, single sampling)  
(Clause 11.6)

CODE LETTER	SAMPLE SIZE	ACCEPTABLE QUALITY LEVEL																									
		0.010	0.015	0.025	0.040	0.065	0.10	0.15	0.25	0.40	0.65	1.0	1.5	2.5	4.0	6.5	10	15	25	40	65	100	150	250	400	650	1000
A	2	0.29	0.46	0.73	1.2	1.8	2.9	4.6	7.2	12	18	29	46	77	120	130	180	200	270	330	460	590	770	1000	1400	1900	
B	3																										
C	5																										
D	8																										
E	13																										
F	20																										
G	32																										
H	50																										
J	80																										
K	125																										
L	200																										
M	315																										
N	500																										
P	800																										
Q	1250																										
R	2000																										

LQ (DEFECTS)  $P_a = 10$  PERCENT

TABLE 7A LIMITING QUALITY (IN PERCENT DEFECTIVE) FOR WHICH  $P_a = 5$  PERCENT  
(FOR NORMAL INSPECTION, SINGLE SAMPLING)  
(Clause 11.6)

CODE LETTER	SAMPLE SIZE	ACCEPTABLE QUALITY LEVEL															
		0.010	0.015	0.025	0.040	0.065	0.10	0.15	0.25	0.40	0.65	1.0	1.5	2.5	4.0	6.5	10
A	2															78	
B	3														63		
C	5													45			66
D	8												31			47	60
E	13											21			32	41	50
F	20										14			22	28	34	46
G	32									8.9			14	18	23	30	37
H	50								5.8			9.1	12	15	20	25	32
J	80							3.7			5.8	7.7	9.4	13	16	20	26
K	125						2.4			3.8	5.0	6.2	8.4	11	14	18	24
L	200					1.5			2.4	3.2	3.9	5.3	6.6	8.5	11	15	
M	315				0.95			1.5	2.0	2.5	3.3	4.2	5.4	7.0	9.6		
N	500			0.60			0.95	1.3	1.6	2.1	2.6	3.4	4.4	6.1			
P	800		0.38			0.59	0.79	0.97	1.3	1.6	2.1	2.7	3.8				
Q	1250	0.24			0.38	0.50	0.62	0.84	1.1	1.4	1.8	2.4					
R	2 000			0.24	0.32	0.39	0.53	0.66	0.85	1.1	1.5						

LQ (DEFECTIVES)  $P_a = 5.0$  PERCENT



TABLE 7B LIMITING QUALITY (IN DEFECTS PER HUNDRED UNITS) FOR WHICH  $P_a = 5$  PERCENT  
(For normal inspection, single sampling)  
(Clause 11.6)

CODE LETTER	SAMPLE SIZE	ACCEPTABLE QUALITY LEVEL																									
		0.010	0.015	0.025	0.040	0.065	0.10	0.15	0.25	0.40	0.65	1.0	1.5	2.5	4.0	6.5	10	15	25	40	65	100	150	250	400	650	1000
A	2															150			240	320	390	530	660	850	1100	1500	2000
B	3														100			160	210	260	350	440	570	730	1000	1400	1900
C	5													60			95	130	160	210	260	340	440	610	810	1100	
D	8											38				59	79	97	130	160	210	270	380	510	710		
E	13										23				37	48	60	81	100	130	170	230	310	440			
F	20									15				24	32	39	53	66	85	110	150						
G	32								9.4			15		20	24	33	41	53	68	95							
H	50							6.0			9.5	13	16	21	26	34	44	61									
J	80						3.8			5.9	7.9	9.7	13	16	21	27	38										
K	125					2.4			3.8	5.0	6.2	8.4	11	14	18	24											
L	200				0.95	1.5			2.4	3.2	3.9	5.3	6.6	8.5	11	15											
M	315						1.5	2.0	2.5	3.3	4.2	5.4	7.0	9.6													
N	500			0.60			0.95	1.3	1.6	2.1	2.6	3.4	4.4	6.1													
P	800		0.38			0.59	0.79	0.97	1.3	1.6	2.1	2.7	3.8														
Q	1250	0.24			0.38	0.50	0.62	0.84	1.1	1.4	1.8	2.4															
R	2000			0.24	0.32	0.39	0.53	0.66	0.85	1.1	1.5																

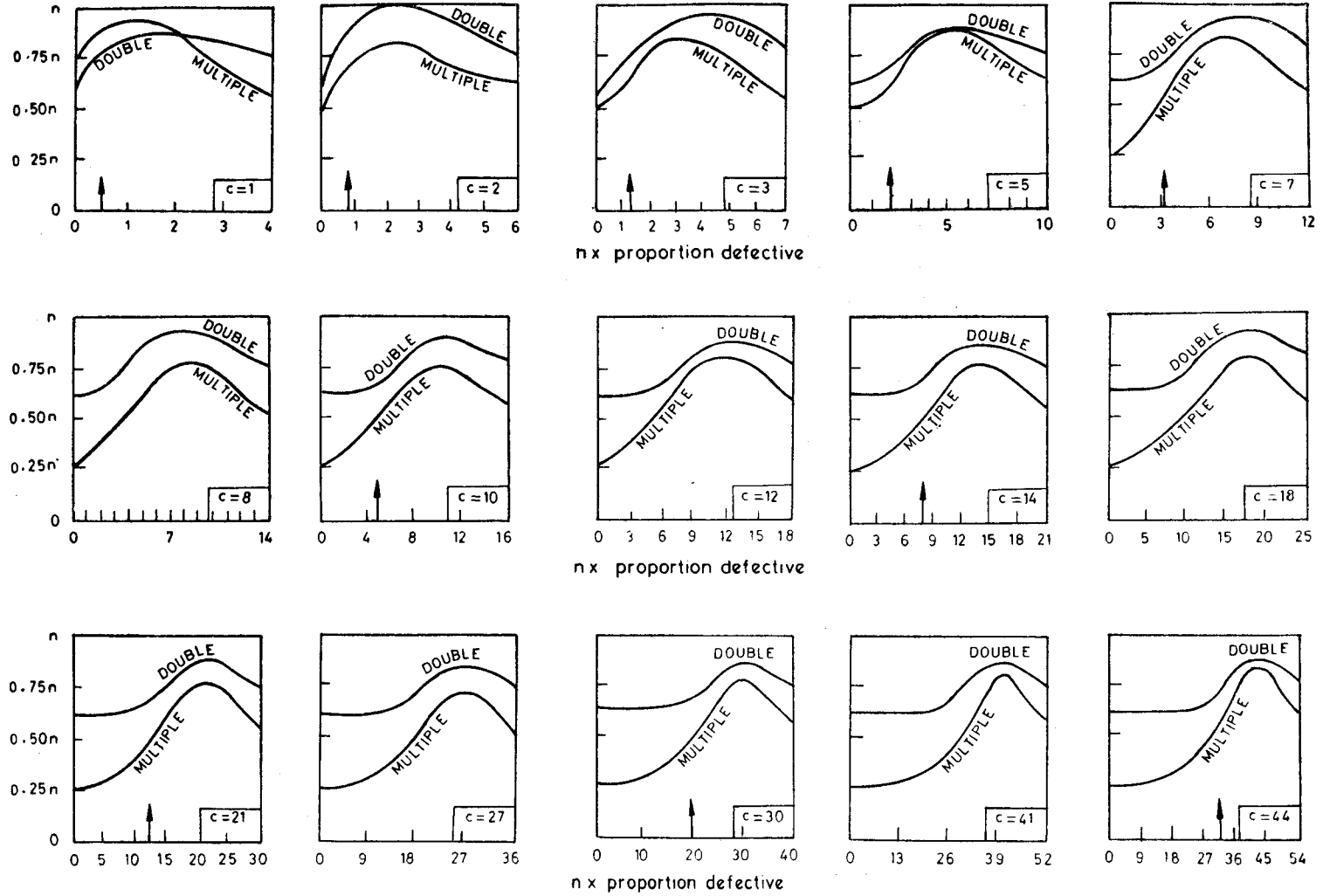
LQ DEFECTS  $P_a = 5$  PERCENT

TABLE 8 LIMIT NUMBERS FOR REDUCED INSPECTION  
(Clause 8.33)

NUMBER OF SAMPLE UNITS FROM LAST 10 LOTS OR BATCHES	ACCEPTABLE QUALITY LEVEL																									
	0.010	0.015	0.025	0.040	0.065	0.10	0.15	0.25	0.40	0.65	1.0	1.5	2.5	4.0	6.5	10	15	25	40	65	100	150	250	400	650	1 000
20 — 29	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	0	0	2	4	8	14	22	40	68	115	181
30 — 49	.	.	.	.	.	.	.	.	.	.	.	.	.	.	0	0	1	3	7	13	22	36	63	105	118	277
50 — 79	.	.	.	.	.	.	.	.	.	.	.	.	.	0	0	2	3	7	14	25	40	63	110	181	301	
80 — 129	.	.	.	.	.	.	.	.	.	.	.	.	0	0	2	4	7	14	24	42	68	105	181	297		
130 — 199	.	.	.	.	.	.	.	.	.	.	.	0	0	2	4	7	13	25	42	72	115	177	301	490		
200 — 319	.	.	.	.	.	.	.	.	.	.	0	0	2	4	8	14	22	40	68	115	181	277	471			
320 — 499	.	.	.	.	.	.	.	.	.	0	0	1	4	8	14	24	39	68	113	189						
500 — 799	.	.	.	.	.	.	.	.	0	0	2	3	7	14	25	40	63	110	181							
800 — 1 249	.	.	.	.	.	.	.	0	0	2	4	7	14	24	42	68	105	181								
1 250 — 1 999	.	.	.	.	.	.	0	0	2	4	7	13	24	40	69	110	169									
2 000 — 3 149	.	.	.	.	.	0	0	2	4	8	14	22	40	68	115	181										
3 150 — 4 999	.	.	.	.	0	0	1	4	8	14	24	38	67	111	186											
5 000 — 7 999	.	.	.	0	0	2	3	7	14	25	40	63	110	181												
8 000 — 12 499	.	.	0	0	2	4	7	14	24	42	68	105	181													
12 500 — 19 999	.	0	0	2	4	7	13	24	40	69	110	169														
20 000 — 31 499	0	0	2	4	8	14	22	40	68	115	181															
31 500 — 49 999	0	1	4	8	14	24	38	67	111	186																
≥ 50 000	2	3	7	14	25	40	63	110	181	301																

- Denotes that the number of sample units from the last 10 lots or batches is not sufficient for reduced inspection for this AQL. In this instance, more than 10 lots or batches may be used for the calculation, provided that the lots or batches used are the most recent ones in sequence, that they have all been on normal inspection, and that none has been rejected while on original inspection.

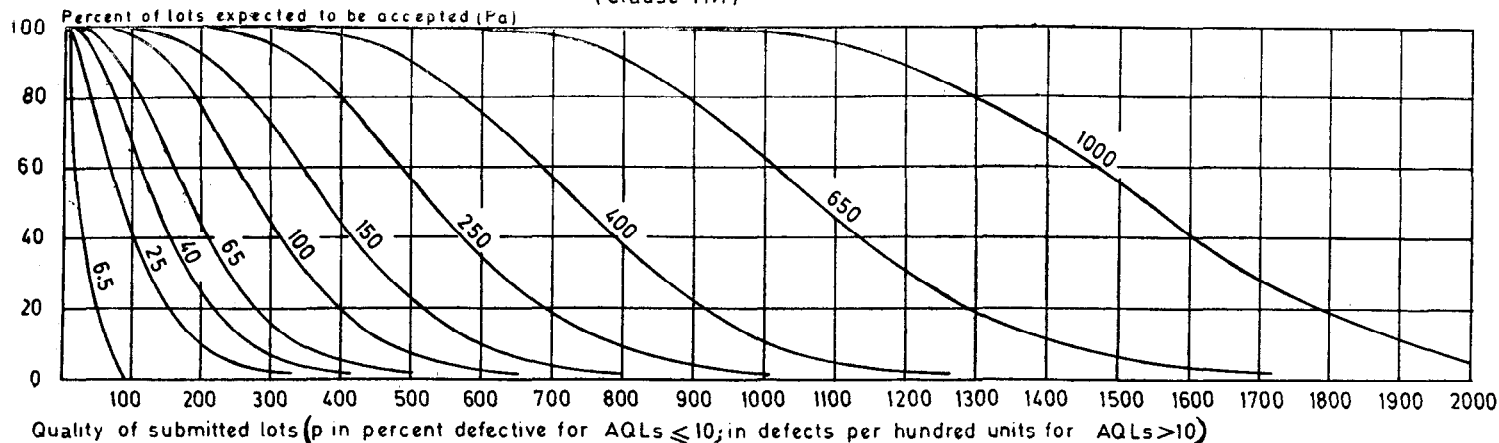
**TABLE 9**  
**AVERAGE SAMPLE SIZE CURVES FOR DOUBLE AND MULTIPLE SAMPLING (NORMAL AND TIGHTENED INSPECTION)**  
 (Clause 11.5)



n = Equivalent single sample size  
 c = Single sample acceptance number  
 ↑ = AQL for normal inspection

TABLE 10A TABLES FOR SAMPLE SIZE CODE LETTER A

CHART A- Operating characteristic curves for single sampling plans (curves for double and multiple sampling are matched as closely as practicable)  
(Clause 11.1)



NOTE - Figures on curves are Acceptable Quality Levels (AQLs) for normal inspection.

TABLE 10 A - 1 TABULATED VALUES FOR OPERATING CHARACTERISTICS CURVES FOR SINGLE SAMPLING PLANS  
(Clause 11.1)

$P_a$	ACCEPTABLE QUALITY LEVELS (NORMAL INSPECTION)														
	6.5	6.5	25	40	65	100	150		250		400		650		1 000
	$p$ (In Percent Defective)		$p$ (In Defects per Hundred Units)												
99.0	0.501	0.51	7.45	21.8	41.2	89.2	145	175	239	305	374	517	629	859	977
95.0	2.53	2.56	17.8	40.9	68.3	131	199	235	308	385	462	622	745	995	1 122
90.0	5.13	5.25	26.6	55.1	87.3	158	233	272	351	432	515	684	812	1 073	1 206
75.0	13.4	14.4	48.1	86.8	127	211	298	342	431	521	612	795	934	1 314	1 354
50.0	29.3	34.7	83.9	134	184	284	383	433	533	633	733	933	1 083	1 383	1 533
25.0	50.0	69.3	135	196	256	371	484	540	651	761	870	1 087	1 248	1 568	1 728
10.0	68.4	115	195	266	334	464	589	650	770	889	1 006	1 238	1 409	1 748	1 916
5.0	77.6	150	237	315	388	526	657	722	848	972	1 094	1 334	1 512	1 862	2 035
1.0	90.0	230	332	420	502	655	800	870	1 007	1 141	1 272	1 529	1 718	2 088	2 270
			40	65	100	150		250		400		650		1 000	
Acceptable Quality Levels (Tightened Inspection)															

NOTE - Binomial distribution used for percent defective computations; Poisson for defects per hundred units.

TABLE 10-A-2 SAMPLING PLANS FOR SAMPLE SIZE CODE LETTER A  
(Clause 11.1)

TYPE OF SAMPLING PLAN	CUMULATIVE SAMPLE SIZE	ACCEPTABLE QUALITY LEVELS (NORMAL INSPECTION)																														CUMULATIVE SAMPLE SIZE						
		<6.5		6.5		X		10		15		25		40		65		100		150		X		250		X		400		X			650		X		1000	
		Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re		Ac	Re	Ac	Re		
SINGLE	2	∇	0	1	USE LETTER D	USE LETTER C	USE LETTER B	1	2	2	3	3	4	5	6	7	8	8	9	10	11	12	13	14	15	18	19	21	22	27	28	30	31	2				
DOUBLE		∇	*	(*)				(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)		
MULTIPLE		∇	*	*				*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
		<10	X	10	15	25	40	65	100	150	X	250	X	400	X	650	X	1000	X																			
ACCEPTABLE QUALITY LEVELS (TIGHTENED INSPECTION)																																						

∇ = Use next subsequent sample size code letter for which acceptance and rejection numbers are available.

Ac = Acceptance number.

Re = Rejection number.

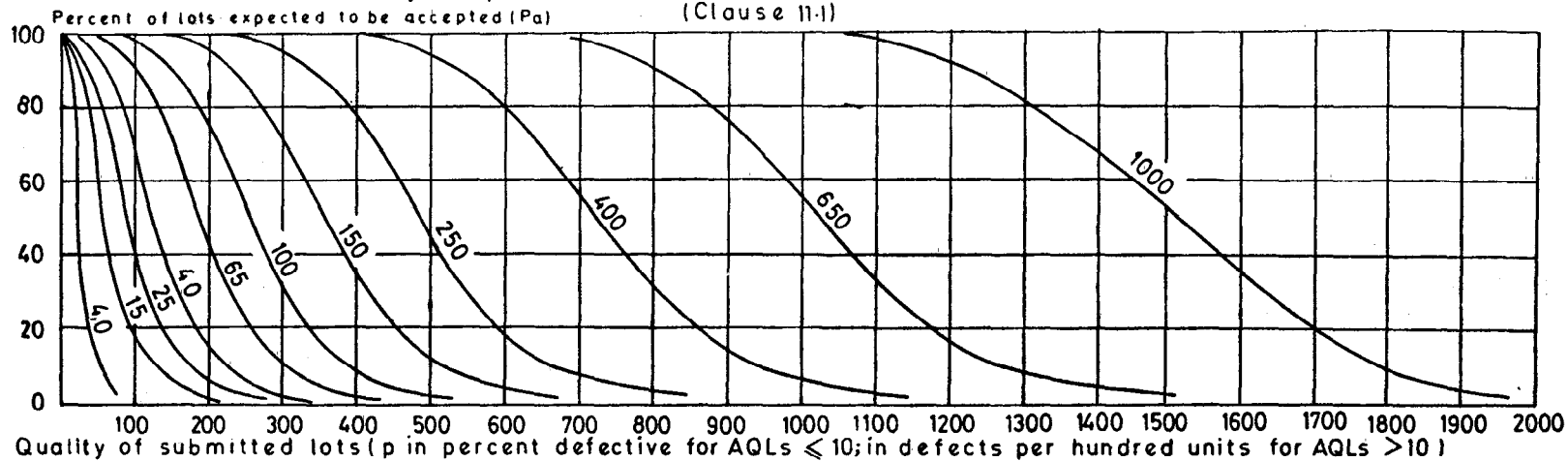
\* = Use single sampling plan above (or alternatively use letter D).

(\*) = Use single sampling (or alternatively use letter B).

TABLE 10-B TABLES FOR SAMPLE SIZE CODE LETTER B












CHART B-Operating characteristic curves for single sampling plans (curves for double and multiple sampling are matched as closely as practicable)

(Clause 11.1)



NOTE - Figures on curves are Acceptable Quality Levels (AQLs) for normal inspection.

TABLE 10B-1 TABULATED VALUES FOR OPERATING CHARACTERISTIC CURVES FOR SINGLE SAMPLING PLANS  
(Clause 11.1)

P <sub>a</sub>	ACCEPTABLE QUALITY LEVELS (NORMAL INSPECTION)																
	4.0	4.0	15	25	40	65	100		150		250		400		650		1 000
	p (in Percent Defective)	p (in Defects per Hundred Units)															
99.0	0.33	0.34	4.97	14.5	27.4	59.5	96.9	117	159	203	249	345	419	573	651	947	1 029
95.0	1.70	1.71	11.8	27.3	45.5	87.1	133	157	206	256	308	415	496	663	748	1 065	1 152
90.0	3.45	3.50	17.7	36.7	58.2	105	155	181	234	288	343	456	541	716	804	1 131	1 222
75.0	9.14	9.60	32.0	57.6	84.5	141	199	228	287	347	408	530	623	809	903	1 249	1 344
50.0	20.6	23.1	55.9	89.1	122	189	256	289	356	422	489	622	722	922	1 022	1 389	1 489
25.0	37.0	46.2	89.8	131	170	247	323	360	434	507	580	724	832	1 046	1 152	1 539	1 644
10.0	53.6	76.8	130	177	223	309	392	433	514	593	671	825	939	1 165	1 277	1 683	1 793
5.0	63.2	99.9	158	210	258	350	438	481	565	648	730	890	1 008	1 241	1 356	1 773	1 886
1.0	78.4	154	221	280	335	437	533	580	672	761	848	1 019	1 145	1 392	1 513	1 951	2 069
	6.5	6.5	25	40	65	100		150		250		400		650		1 000	
	Acceptable Quality Levels (Tightened Inspection)																

NOTE - Binomial distribution used for percent defective computations; Poisson for defects per hundred units.

TABLE 10-B-2 SAMPLING PLANS FOR SAMPLE SIZE CODE LETTER B  
(Clause 11.1)

TYPE OF SAMPLING PLAN	CUMU-LATIVE SAMPLE SIZE	ACCEPTABLE QUALITY LEVELS (NORMAL INSPECTION)																																								CUMU-LATIVE SAMPLE SIZE	
		<4.0		4.0		6.5		X		10		15		25		40		65		100		X		150		X		250		X		400		X		650		X		1 000			
		Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re				
SINGLE	3	∇	0	1								1	2	2	3	3	4	5	6	7	8	8	9	10	11	12	13	14	15	18	19	21	22	27	28	30	31	41	42	44	45	3	
DOUBLE	2	∇	*									0	2	0	3	1	4	2	5	3	7	3	7	5	9	6	10	7	11	9	14	11	16	15	20	17	22	23	29	25	31	2	
	4				USE LETTER A		USE LETTER D		USE LETTER C		1	2	3	4	4	5	6	7	8	9	11	12	12	13	15	16	18	19	23	24	26	27	34	35	37	38	52	53	56	57	4		
MULTIPLE		∇	*																																								
		< 6.5	6.5			X		10		15		25		40		65		100		X		150		X		250		X		400		X		650		X		1 000		X			
ACCEPTABLE QUALITY LEVELS (TIGHTENED INSPECTION)																																											

∇ = Use next subsequent sample size code letter for which acceptance and rejection numbers are available.

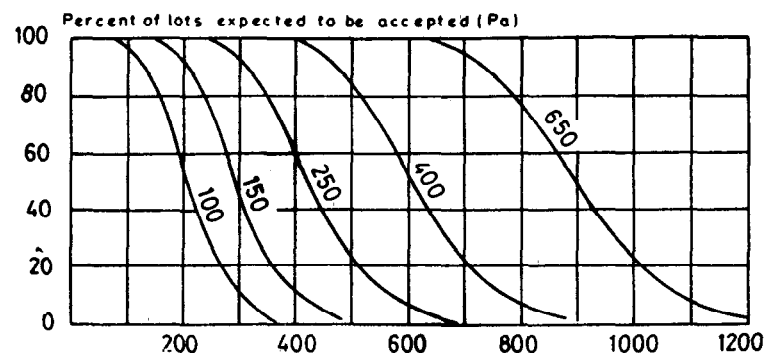
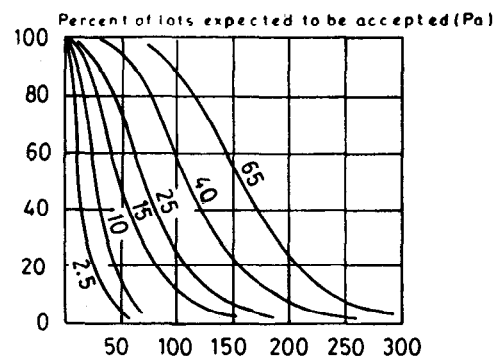
Ac = Acceptance number.

Re = Rejection number.

\* = Use single sampling plan above (or alternatively use letter E).

++ = Use double sampling plan above (or alternatively use letter D).

TABLE 10C TABLES FOR SAMPLE SIZE CODE LETTER C  
 CHART C-Operating characteristic curves for single sampling plans (curves for double and multiple sampling are matched as closely as practicable). (Clause 11.1)



Quality of submitted lots (p in percent defective for AQLs  $\leq 10$ ; in defects per hundred units for AQLs  $> 10$ )

NOTE-Figures on curves are Acceptable Quality Levels (AQLs) for normal inspection.

TABLE 10C-1 TABULATED VALUES FOR OPERATING CHARACTERISTIC CURVES FOR SINGLE SAMPLING PLANS  
 (Clause 11.1)

P <sub>a</sub>	ACCEPTABLE QUALITY LEVELS (NORMAL INSPECTION)																	
	2.5	10	2.5	10	15	25	40	65	×	100	×	150	×	250	×	400	×	650
	Pln Percent Defective)		p (in Defects per Hundred Units)															
99.0	0.20	3.28	0.20	2.89	8.72	16.5	35.7	58.1	70.1	95.4	122	150	207	251	344	391	568	618
95.0	1.02	7.63	1.03	7.10	16.4	27.3	52.3	79.6	93.9	123	154	185	249	298	398	449	639	691
90.0	2.09	11.2	2.10	10.6	22.0	34.9	63.0	93.1	109	140	173	206	273	325	429	482	679	733
75.0	5.59	19.4	5.76	19.2	34.5	50.7	84.4	119	137	172	208	245	318	374	485	542	749	806
50.0	12.9	31.4	13.9	33.6	53.5	73.4	113	153	173	213	253	293	373	433	553	613	833	893
25.0	24.2	45.4	27.7	53.9	78.4	102	148	194	216	260	304	348	435	499	627	691	923	987
10.0	36.9	58.4	46.1	77.8	106	134	186	235	260	308	356	403	495	564	699	766	1 010	1 076
5.0	45.1	65.8	59.9	94.9	126	155	210	263	289	339	389	438	534	605	745	814	1 064	1 131
1.0	60.2	77.8	92.1	133	168	201	262	320	348	403	456	509	612	687	835	908	1 171	1 241
	4.0	×	4.0	15	25	40	65	×	100	×	150	×	250	×	400	×	650	×
	Acceptable Quality Levels (Tightened Inspection)																	

NOTE-Binomial distribution used for percent defective computations; Poisson for defects per hundred units.



TABLE 10-C-2 SAMPLING PLANS FOR SAMPLE SIZE CODE LETTER C

(Clause 11.1)

TYPE OF SAMPLING PLAN	CUMU-LATIVE SAMPLE SIZE	ACCEPTABLE QUALITY LEVELS (NORMAL INSPECTION)																								CUMU-LATIVE SAMPLE SIZE																		
		<2.5		2.5		4.0		X		6.5		10		15		25		40		65		X		100			X		150		X		250		X		400		X		650		1000	
		Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re		Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re				
SINGLE	5	∇	0	1	USE LETTER B	USE LETTER E	USE LETTER D	1	2	2	3	3	4	5	6	7	8	8	9	10	11	12	13	14	15	18	19	21	22	27	28	30	31	41	42	44	45	USE LETTER B	5					
DOUBLE	3	∇	*	0				2	0	3	1	4	2	5	3	7	3	7	5	9	6	10	7	11	9	14	11	16	15	20	17	22	23	29	25	31	3							
	6			1				2	3	4	4	5	6	7	8	9	11	12	12	13	15	16	18	19	23	24	26	27	34	35	37	38	52	53	56	57	6							
MULTIPLE		∇	*																																									
		<4.0	4.0	X	6.5	10	15	25	40	65	X	100	X	150	X	250	X	400	X	650	X	1000																						
ACCEPTABLE QUALITY LEVELS (TIGHTENED INSPECTION)																																												

∇ = Use next subsequent sample size code letter for which acceptance and rejection numbers are available.

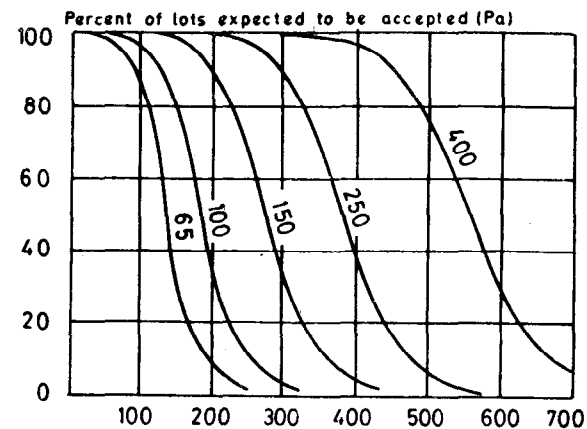
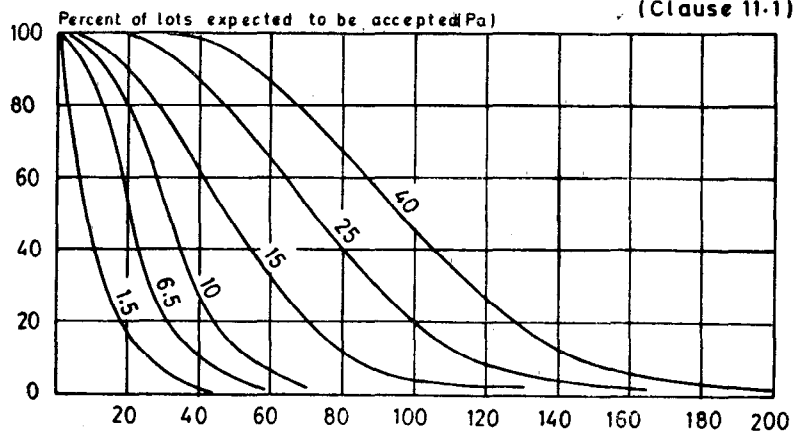
Ac = Acceptance number.

Re = Rejection number.

\* = Use single sampling plan above (or alternatively use letter F).

++ = Use double sampling plan above (or alternatively use letter D).

TABLE 10D TABLES FOR SAMPLE SIZE CODE LETTER D  
 CHART D—Operating characteristic curves for single sampling plans (curves for double and multiple sampling are matched as closely as practicable).



Quality of submitted lots ( $p$  in percent defective for AQLs  $\leq 10$ ; in defects per hundred units for AQLs  $> 10$ )

NOTE—Figures on curves are Acceptable Quality Levels (AQLs) for normal inspection.

TABLE 10D-1 TABULATED VALUES FOR OPERATING CHARACTERISTIC CURVES FOR SINGLE SAMPLING PLANS (Clause 11.1)

(Clause 11-1)																			
P <sub>a</sub>	ACCEPTABLE QUALITY LEVELS (NORMAL INSPECTION)																		
	1.5	6.5	10	1.5	6.5	10	15	25	40	⊠	65	⊠	100	⊠	150	⊠	250	⊠	400
	p (in Percent Defective)			p (in Defects per Hundred Units)															
99.0	0.13	2.00	6.00	0.13	1.86	5.45	10.3	22.3	36.3	43.8	59.8	76.2	93.5	129	157	215	244	355	386
95.0	0.64	4.64	11.1	0.64	4.44	10.2	17.1	32.7	49.8	58.7	77.1	96.1	116	156	186	249	281	399	432
90.0	1.31	6.88	14.7	1.31	6.65	13.8	21.8	39.4	58.2	67.9	87.8	108	129	171	203	268	301	424	458
75.0	3.53	12.1	22.1	3.60	12.0	21.6	31.7	52.7	74.5	85.5	108	130	153	199	234	303	339	468	504
50.0	8.30	20.1	32.1	8.66	21.0	33.4	45.9	70.9	95.9	108	133	158	183	233	271	346	383	521	558
25.0	15.9	30.3	43.3	17.3	33.7	49.0	63.9	92.8	121	135	163	190	218	272	312	392	432	577	617
10.0	25.0	40.6	53.9	28.8	48.6	66.5	83.5	116	147	162	193	222	252	309	352	437	478	631	672
5.0	31.2	47.1	59.9	37.5	59.3	78.7	96.9	131	164	180	212	243	274	334	378	465	509	665	707
1.0	43.8	58.8	70.7	57.6	83.0	105	126	164	200	218	252	285	318	382	429	522	568	732	776
	2.5	10	⊠	2.5	10	15	25	40	⊠	65	⊠	100	⊠	150	⊠	250	⊠	400	⊠
	Acceptable Quality Levels (Tightened Inspection)																		

NOTE—Binomial distribution used for percent defective computations; Poisson for defects per hundred units.

TABLE 10-D-2 SAMPLING PLANS FOR SAMPLE SIZE CODE LETTER D

( Clause 11.1 )

TYPE OF SAMPLING PLAN	CUMU- LATIVE SAMPLE SIZE	ACCEPTABLE QUALITY LEVELS (NORMAL INSPECTION)																								CUMU- LATIVE SAMPLE SIZE
		<1.5	1.5	2.5	×	4.0	6.5	10	15	25	40	×	65	×	100	×	150	×	250	×	400	>400				
		Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re			
SINGLE	8	▽	0 1				1 2	2 3	3 4	4 5	6 7	8 8	9 10	11 12	13 14	15 18	19 21	22 27	28 30	31 41	42 44	45 45	Δ	8		
DOUBLE	5	▽	*				0 2	0 3	1 4	2 5	3 7	4 8	5 9	7 11	7 12	9 13	9 15	10 16	11 18	14 23	16 26	17 34	22 38	23 52	29 53	31 56
	10			1 2	3 4	4 5	6 7	8 11	12 12	13 15	16 18	19 23	24 26	27 34	35 37	38 52	53 56	57 57								10
MULTIPLE	2	▽	*	USE LETTER C	USE LETTER F	USE LETTER E	# 2	# 2	# 3	# 4	0 4	0 4	0 5	1 6	1 7	2 8	3 10	4 12	5 16	6 17	7 25	8 27	9 36	10 37	Δ	2
	4						# 2	0 3	0 4	1 5	2 6	3 7	4 10	5 12	6 15	7 17	8 23	9 27	10 34	11 37	12 42	13 52	14 53	15 56	17 57	4
	6						0 2	0 3	1 4	2 5	3 6	4 8	5 10	6 12	7 15	8 18	9 23	10 26	11 34	12 37	13 42	14 52	15 53	16 56	6	
	8						0 3	1 4	2 5	3 6	4 7	5 10	6 12	7 15	8 18	9 23	10 26	11 34	12 37	13 42	14 52	15 53	16 56	17 57	8	
	10						1 3	2 4	3 5	4 6	5 7	6 11	7 12	8 15	9 17	10 22	11 25	12 32	13 37	14 42	15 49	16 55	17 57	18 58	10	
	12						1 3	3 4	5 6	6 7	9 10	12 12	14 14	17 18	20 21	23 27	29 31	33 40	43 45	47 61	64 65	68 68			12	
	14						2 3	4 5	6 7	9 10	13 14	14 14	15 18	19 21	22 25	26 32	33 37	38 48	49 53	54 72	73 77	78 78			14	
		<2.5	2.5	×	4.0	6.5	10	15	25	40	×	65	×	100	×	150	×	250	×	400	×	>400				
ACCEPTABLE QUALITY LEVELS (TIGHTENED INSPECTION)																										

Δ = Use next preceding sample size code letter for which acceptance and rejection numbers are available.

▽ = Use next subsequent sample size code letter for which acceptance and rejection numbers are available.

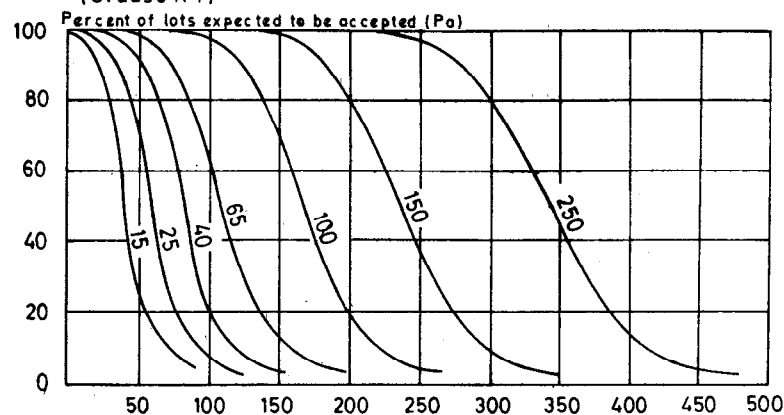
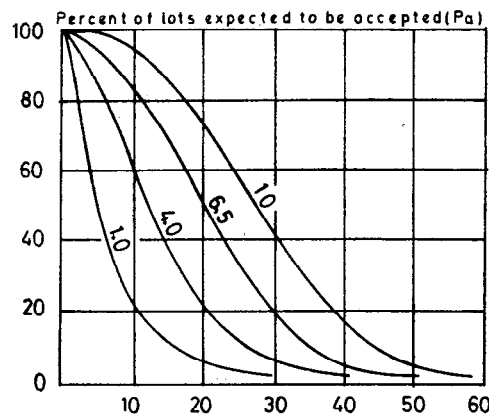
Ac = Acceptance number

Re = Rejection number

\* = Use single sampling plan above (or alternatively use letter G).

# = Acceptance not permitted at this sample size.

TABLE 10E TABLES FOR SAMPLE SIZE CODE LETTER E  
 CHART E-Operating characteristic curves for single sampling plans (curves for double and multiple sampling are matched as closely as practicable). (Clause 11.1)



Quality of submitted lots ( $p$  in percent defective for AQLs  $\leq 10$ ; in defects per hundred units for AQLs  $> 10$ )

NOTE—Figures on curves are Acceptable Quality Levels (AQLs) for normal inspection.

TABLE 10E-1 TABULATED VALUES FOR OPERATING CHARACTERISTIC CURVES FOR SINGLE SAMPLING PLANS  
 (Clause 11.1)

Pa	ACCEPTABLE QUALITY LEVELS (NORMAL INSPECTION)																							
	1.0	4.0	6.5	10	1.0	4.0	6.5	10	15	25	40	65	100	150	250									
	p (in Percent Defective)				p (in Defects per Hundred Units)																			
99.0	0.077	1.19	3.63	7.00	0.078	1.15	3.35	6.33	13.7	22.4	27.0	36.7	46.9	57.5	79.6	96.7	132	150	219	238				
95.0	0.394	2.81	6.63	11.3	0.395	2.73	6.29	10.5	20.1	30.6	36.1	47.5	59.2	71.1	95.7	115	153	173	246	266				
90.0	0.807	4.16	8.80	14.2	0.808	4.09	8.48	13.4	24.2	35.8	41.8	54.0	66.5	79.2	105	125	165	185	261	282				
75.0	2.19	7.41	13.4	19.9	2.22	7.39	13.3	19.5	32.5	45.8	52.6	66.3	80.2	94.1	122	144	187	208	288	310				
50.0	5.19	12.6	20.0	27.5	5.33	12.9	20.6	28.2	43.6	59.0	66.7	82.1	97.5	113	144	168	213	236	321	344				
25.0	10.1	19.4	28.0	36.2	10.7	20.7	30.2	39.3	57.1	74.5	83.1	100	117	134	167	192	241	266	355	379				
10.0	16.2	26.8	36.0	44.4	17.7	29.9	40.9	51.4	71.3	90.5	100	119	137	155	190	217	269	295	388	414				
5.0	20.6	31.6	41.0	49.5	23.0	36.5	48.4	59.6	80.9	101	111	130	150	168	205	233	286	313	409	435				
1.0	29.8	41.5	50.6	58.7	35.4	51.1	64.7	77.3	101	123	134	155	176	196	235	264	321	349	450	477				
	1.5	6.5	10		1.5	6.5	10	15	25		40		65		100		150		250					
Acceptable Quality Levels (Tightened Inspection)																								

NOTE—Binomial distribution used for percent defective computations; Poisson for defects per hundred units.

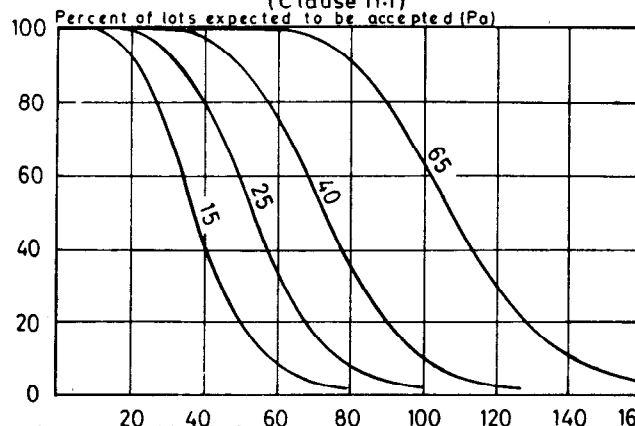
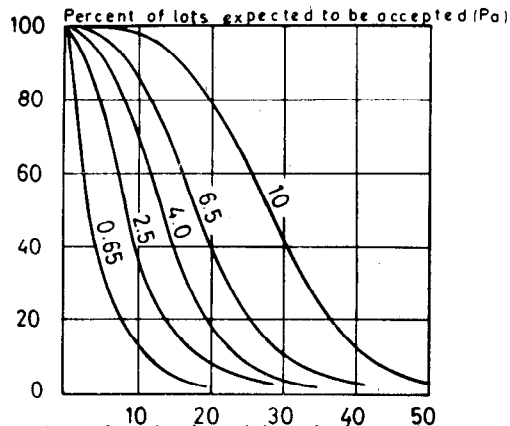
**TABLE 10-E-2 SAMPLING PLANS FOR SAMPLE SIZE CODE LETTER E**  
(Clause 11.1)

TYPE OF SAMPLING PLAN	CUMU - LATIVE SAMPLE SIZE	ACCEPTABLE QUALITY LEVELS (NORMAL INSPECTION)																								CUMU - LATIVE SAMPLE SIZE
		<1.0	1.0	1.5	×	2.5	4.0	6.5	10	15	25	×	40	×	65	×	100	×	150	×	250	>250				
		Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re				
SINGLE	13	∇	0 1	USE LETTER D	USE LETTER G	USE LETTER F	1 2 2	3 3	4 5	6 7	8 8	9 10	11 12	13 14	15 18	19 21	22 27	28 30	31 41	42 44	45 45	Δ	13			
DOUBLE	8	∇	*				0 2 0	3 1	4 2	5 3	7 3	7 5	9 6	10 7	11 9	14 11	16 15	20 17	22 23	29 25	31 31	Δ	8			
	16						1 2 3	4 4	5 6	7 8	9 11	12 12	13 15	16 18	19 23	24 26	27 34	35 37	38 52	53 53	56 57		16			
MULTIPLE	3	∇	*				# 2 #	2 #	3 #	4 0	4 0	4 0	5 0	6 1	7 1	8 2	9 3	10 4	12 6	15 6	16 16	Δ	3			
	6						# 2 0	3 0	3 1	5 1	6 2	7 3	8 3	9 4	10 6	12 7	14 10	17 11	19 16	25 17	27 27		6			
	9						0 2 0	3 1	4 2	6 3	8 4	9 6	10 7	12 8	13 11	17 13	19 17	24 19	27 26	36 29	39 39		9			
	12						0 3 1	4 2	5 3	7 5	10 6	11 8	13 10	15 12	17 16	22 19	25 24	31 27	34 37	46 40	49 49		12			
	15						1 3 2	4 3	6 5	8 7	11 9	12 11	15 14	17 17	20 22	25 25	29 32	37 36	40 49	55 53	58 58		15			
	18						1 3 3	5 4	6 7	9 10	12 12	14 14	17 18	20 21	23 27	29 31	33 40	43 45	47 61	64 64	65 68		18			
	21						2 3 4	5 6	7 9	10 13	14 14	15 18	19 21	22 25	26 32	33 37	38 48	49 53	54 72	73 77	78 78		21			
		<1.5	1.5	×	2.5	4.0	6.5	10	15	25	×	40	×	65	×	100	×	150	×	250	×	>250				
ACCEPTABLE QUALITY LEVELS (TIGHTENED INSPECTION)																										

- Δ = Use next preceding sample size code letter for which acceptance and rejection numbers are available
- ∇ = Use next subsequent sample size code letter for which acceptance and rejection numbers are available.
- Ac = Acceptance number.
- Re = Rejection number
- \* = Use single sampling plan above.
- # = Acceptance not permitted at this sample size.

TABLE 10F TABLES FOR SAMPLE SIZE CODE LETTER F









CHART F-Operating characteristic curves for single sampling plans (curves for double and multiple sampling are matched as closely as practicable). (Clause 11.1)



Quality of submitted lots (p in percent defective for AQLs  $\leq 10$ ; in defects per hundred units for AQLs  $> 10$ )

NOTE- Figures on curves are Acceptable Quality Levels (AQLs) for normal inspection

TABLE 10F-1 TABULATED VALUES FOR OPERATING CHARACTERISTIC CURVES FOR SINGLE SAMPLING PLANS (Clause 11.1)

P <sub>a</sub>	ACCEPTABLE QUALITY LEVELS (NORMAL INSPECTION)																	
	0.65	2.5	4.0	6.5	10	0.65	2.5	4.0	6.5	10	15		25		40		65	
	p (in Percent Defective)					p (in Defects per Hundred Units)												
99.0	0.050	0.75	2.25	4.31	9.75	0.051	0.75	2.18	4.12	8.92	14.5	17.5	23.9	30.5	37.4	51.7	62.9	
95.0	0.256	1.80	4.22	7.13	14.0	0.257	1.78	4.09	6.83	13.1	19.9	23.5	30.8	38.5	46.2	62.2	74.5	
90.0	0.525	2.69	5.64	9.03	16.6	0.527	2.66	5.51	8.73	15.8	23.3	27.2	35.1	43.2	51.5	68.4	81.2	
75.0	1.43	4.81	8.70	12.8	21.6	1.44	4.81	8.68	12.7	21.1	29.8	34.2	43.1	52.1	61.2	79.5	93.4	
50.0	3.41	8.25	13.1	18.1	27.9	3.47	8.39	13.4	18.4	28.4	38.3	43.3	53.3	63.3	73.3	93.3	108	
25.0	6.70	12.9	18.7	24.2	34.8	6.93	13.5	19.6	25.5	37.1	48.4	54.0	65.1	76.1	87.0	109	125	
10.0	10.9	18.1	24.5	30.4	41.5	11.5	19.5	26.6	33.4	46.4	58.9	65.0	77.0	88.9	101	124	141	
5.0	13.9	21.6	28.3	34.4	45.6	15.0	23.7	31.5	38.8	52.6	65.7	72.2	84.8	97.2	109	133	151	
1.0	20.6	28.9	35.6	42.0	53.4	23.0	33.2	42.0	50.2	65.5	80.0	87.0	101	114	127	153	172	
	1.0	4.0	6.5	10		1.0	4.0	6.5	10	15		25		40		65		
	Acceptable Quality Levels (Tightened Inspection)																	

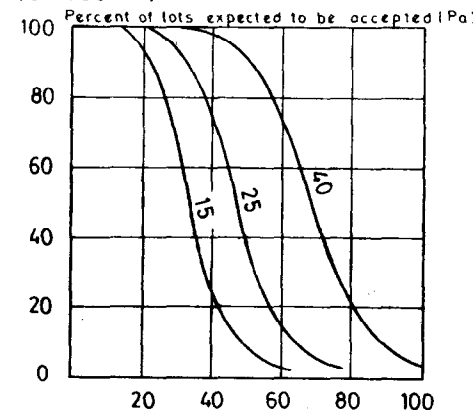
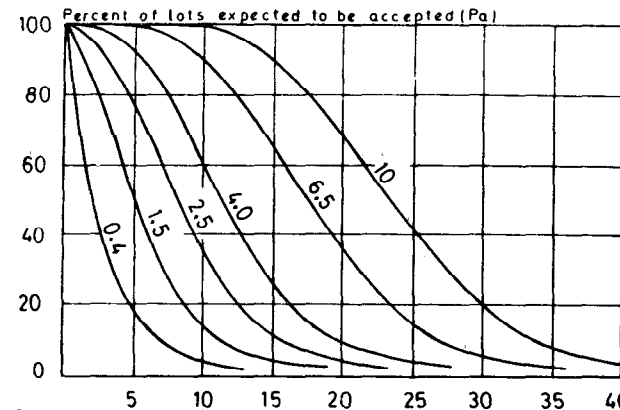
NOTE- Binomial distribution used for percent defective computations; Poisson for defects per hundred units

**TABLE 10-F-2 SAMPLING PLANS FOR SAMPLE SIZE CODE LETTER F**  
(Clause 11.1)

TYPE OF SAMPLING PLAN	CUMU- LATIVE SAMPLE SIZE	ACCEPTABLE QUALITY LEVELS (NORMAL INSPECTION)																																CUMU- LATIVE SAMPLE SIZE		
		<0.65		0.65		1.0		X		1.5		2.5		4.0		6.5		10		15		X		25		X		40		X		65			>65	
		Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re			
SINGLE	20	∇	0	1	USE LETTER E	USE LETTER H	USE LETTER G	1	2	2	3	3	4	5	6	7	8	8	9	10	11	12	13	14	15	18	19	21	22	Δ	20					
DOUBLE	13	∇	*	0				2	0	3	1	4	2	5	3	7	3	7	5	9	6	10	7	11	9	14	11	16	Δ	13						
	26			1				2	3	4	4	5	6	7	8	9	11	12	12	13	15	16	18	19	23	24	26	27		26						
MUTIPLE	5	∇	*	#	2	#	2	#	3	#	4	0	4	0	4	0	5	0	6	1	7	1	8	2	9	Δ	5									
	10			#	2	0	3	0	3	1	5	1	6	2	7	3	8	3	9	4	10	6	12	7	14		10									
	15			0	2	0	3	1	4	2	6	3	8	4	9	6	10	7	12	8	13	11	17	13	19		15									
	20			0	3	1	4	2	5	3	7	5	10	6	11	8	13	10	15	12	17	16	22	19	25		20									
	25			1	3	2	4	3	6	5	8	7	11	9	12	11	15	14	17	17	20	22	25	25	29		25									
	30			1	3	3	5	4	6	7	9	10	12	12	14	14	17	18	20	21	23	27	29	31	33		30									
35			2	3	4	5	6	7	9	10	13	14	14	15	18	19	21	22	25	26	32	33	37	38		35										
		<1.0	1.0	X	1.5	2.5	4.0	6.5	10	15	X	25	X	40	X	65	X	>65																		
ACCEPTABLE QUALITY LEVELS (TIGHTENED INSPECTION)																																				

- Δ = Use next preceding sample size code letter for which acceptance and rejection numbers are available
- ∇ = Use next subsequent sample size code letter for which acceptance and rejection numbers are available
- Ac = Acceptance number
- Rc = Rejection number
- \*
- # = Acceptance not permitted at this sample size

TABLE 10G TABLES FOR SAMPLE SIZE CODE LETTER G  
 CHART G-Operating characteristic curves for single sampling plans (curves for double and multiple sampling are matched as closely as practicable)  
 (Clause 11.1)



Quality of submitted lots (p in percent defective for AQLs  $\leq 10$ ; in defects per hundred units for AQLs  $> 10$ )  
 NOTE—Figures on curves are Acceptable Quality Levels (AQLs) for normal inspection

TABLE 10G-1 TABULATED VALUES FOR OPERATING CHARACTERISTIC CURVES FOR SINGLE SAMPLING PLANS  
 (Clause 11.1)

Pa	ACCEPTABLE QUALITY LEVELS (NORMAL INSPECTION)																	
	0.40	1.5	2.5	4.0	6.5	10	0.40	1.5	2.5	4.0	6.5	10	$\times$	15	$\times$	25	$\times$	40
	p (in Percent Defective)						p (in Defects per Hundred Units)											
99.0	0.032	0.475	1.38	2.63	5.94	9.75	0.032	0.466	1.36	2.57	5.57	9.08	11.0	14.9	19.1	23.4	32.3	39.3
95.0	0.161	1.13	2.59	4.39	8.50	13.1	0.160	1.10	2.55	4.26	8.16	12.4	14.7	19.3	24.0	28.9	38.9	46.5
90.0	0.329	1.67	3.50	5.56	10.2	15.1	0.328	1.66	3.44	5.45	9.85	14.6	17.0	21.9	27.0	32.2	42.7	50.8
75.0	0.895	3.01	5.42	7.98	13.4	19.0	0.900	3.00	5.39	7.92	13.2	18.6	21.4	26.9	32.6	38.2	49.7	58.4
50.0	2.14	5.19	8.27	11.4	17.5	23.7	2.16	5.24	8.35	11.5	17.7	24.0	27.1	33.3	39.6	45.8	58.3	67.7
25.0	4.23	8.19	11.9	15.4	22.3	29.0	4.33	8.41	12.3	16.0	23.2	30.3	33.8	40.7	47.6	54.4	67.9	78.0
10.0	6.94	11.6	15.8	19.7	27.1	34.1	7.19	12.2	16.6	20.9	29.0	36.8	40.6	48.1	55.6	62.9	77.4	88.1
5.0	8.94	14.0	18.4	22.5	30.1	37.2	9.36	14.8	19.7	24.2	32.9	41.1	45.1	53.0	60.8	68.4	83.4	94.5
1.0	13.5	19.0	23.7	28.0	35.9	43.3	14.4	20.7	26.3	31.4	41.0	50.0	54.4	63.0	71.3	79.5	95.6	107
	0.65	2.5	4.0	6.5	10	$\times$	0.65	2.5	4.0	6.5	10	$\times$	15	$\times$	25	$\times$	40	$\times$
Acceptable Quality Levels (Tightened Inspection)																		

NOTE—Binomial distribution used for percent defective computations, Poisson for defects per hundred units.

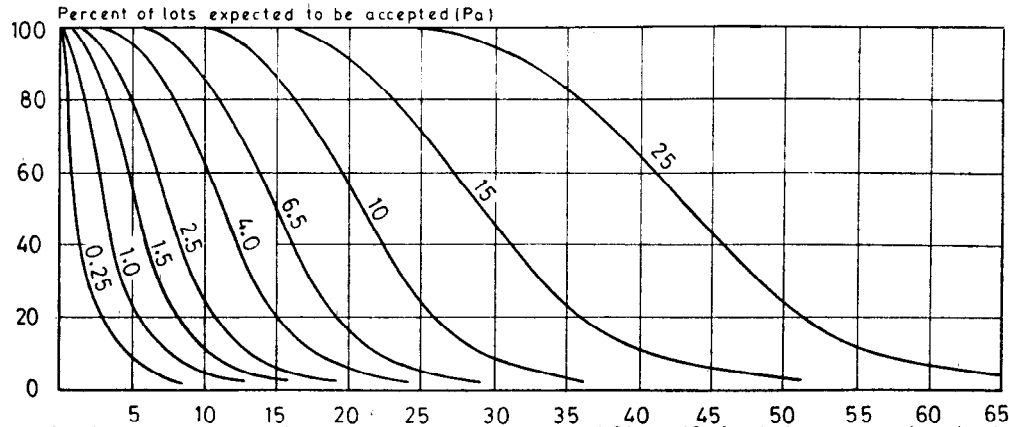


TABLE 10 G-2 SAMPLING PLANS FOR SAMPLE SIZE CODE LETTER G  
( Clause 11.1)

TYPE OF SAMPLING PLAN	CUMULATIVE SAMPLE SIZE	ACCEPTABLE QUALITY LEVELS (NORMAL INSPECTION)																																CUMULATIVE SAMPLE SIZE		
		<0.40		0.40		0.65		X		1.0		1.5		2.5		4.0		6.5		10		X		15		X		25		X		40			>40	
		Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re			
SINGLE	32	∇	0	1	USE LETTER F	USE LETTER J	USE LETTER H	1	2	2	3	3	4	5	6	7	8	8	9	10	11	12	13	14	15	18	19	21	22	Δ	32					
DOUBLE	20	∇	*	0				2	0	3	1	4	2	5	3	7	3	7	5	9	6	10	7	11	9	14	11	16	Δ	20						
	40			1				2	3	4	4	5	6	7	8	9	11	12	12	13	15	16	18	19	23	24	26	27		40						
MULTIPLE	8	∇	*	#	2	#	2	#	3	#	4	0	4	0	4	0	5	0	6	1	7	1	8	2	9	Δ	8									
	16			#	2	0	3	0	3	1	5	1	6	2	7	3	8	3	9	4	10	6	12	7	14		16									
	24			0	2	0	3	1	4	2	6	3	8	4	9	6	10	7	12	8	13	11	17	13	19		24									
	32			0	3	1	4	2	5	3	7	5	10	6	11	8	13	10	15	12	17	16	22	19	25		32									
	40			1	3	2	4	3	6	5	8	7	11	9	12	11	15	14	17	17	20	22	25	25	29		40									
	48			1	3	3	5	4	6	7	9	10	12	12	14	14	17	18	20	21	23	27	29	31	33		48									
	56			2	3	4	5	6	7	9	10	13	14	14	15	18	19	21	22	25	26	32	33	37	38		56									
		<0.65	0.65	X	1.0	1.5	2.5	4.0	6.5	10	X	15	X	25	X	40	X	>40																		
ACCEPTABLE QUALITY LEVELS (TIGHTENED INSPECTION)																																				











- Δ == Use next preceding sample size code letter for which acceptance and rejection numbers are available
- ∇ == Use next subsequent sample size code letter for which acceptance and rejection numbers are available
- Ac == Acceptance number
- Re == Rejection number
- \*
- # == Acceptance not permitted at this sample size

TABLE 10H TABLES FOR SAMPLE SIZE CODE LETTER H  
CHART H-Operating characteristic curves for single sampling plans (curves for double and multiple sampling are matched as closely as practicable).  
(Clause 11.1)



Quality of submitted lots (p in percent defective for AQLs  $\leq 10$ ; in defects per hundred units for AQLs  $> 10$ )  
NOTE—Figures on curves are Acceptable Quality Levels (AQLs) for normal inspection.

TABLE 10H-1 TABULATED VALUES FOR OPERATING CHARACTERISTIC CURVES FOR SINGLE SAMPLING PLANS  
(Clause 11.1)

P <sub>a</sub>	ACCEPTABLE QUALITY LEVELS (NORMAL INSPECTION)																			
	0.25	1.0	1.5	2.5	4.0	6.5		10	0.25	1.0	1.5	2.5	4.0	6.5		10		15		25
	p (in Percent Defective)								P (in Defects per Hundred Units)											
99.0	0.020	0.306	0.888	1.69	3.66	6.06	7.41	11.1	0.020	0.298	0.872	1.65	3.57	5.81	7.01	9.54	12.2	15.0	20.7	25.1
95.0	0.103	0.712	1.66	2.77	5.34	8.20	9.74	12.9	0.103	0.710	1.64	2.73	5.23	7.96	9.39	12.3	15.4	18.5	24.9	29.8
90.0	0.210	1.07	2.23	3.54	6.42	9.53	11.2	14.5	0.210	1.06	2.20	3.49	6.30	9.31	10.9	14.0	17.3	20.6	27.3	32.5
75.0	0.574	1.92	3.46	5.09	8.51	12.0	13.8	17.5	0.576	1.92	3.45	5.07	8.44	11.9	13.7	17.2	20.8	24.5	31.8	37.4
50.0	1.38	3.33	5.31	7.30	11.3	15.2	17.2	21.2	1.39	3.36	5.35	7.34	11.3	15.3	17.3	21.6	25.3	29.3	37.3	43.3
25.0	2.74	5.30	7.70	10.0	14.5	18.8	21.0	25.2	2.77	5.39	7.84	10.2	14.8	19.4	21.6	26.0	30.4	34.8	43.5	49.9
10.0	4.50	7.56	10.3	12.9	17.8	22.4	24.7	29.1	4.61	7.78	10.6	13.4	18.6	23.5	26.0	30.8	35.6	40.3	49.5	56.4
5.0	5.82	9.13	12.1	14.8	19.9	24.7	27.0	31.6	5.99	9.49	12.6	15.5	21.0	26.3	28.9	33.9	38.9	43.8	53.4	60.5
1.0	8.80	12.5	15.9	18.8	24.3	29.2	31.7	36.3	9.21	13.3	16.8	20.1	26.2	32.0	34.8	40.3	45.6	50.9	61.1	68.7
	0.40	1.5	2.5	4.0	6.5		10		0.40	1.5	2.5	4.0	6.5		10		15		25	
Acceptable Quality Levels (Tightened Inspection)																				

NOTE— Binomial distribution used for percent defective computations; Poisson for defects per hundred units.

TABLE 10-H-2 SAMPLING PLANS FOR SAMPLE SIZE CODE LETTER H

( Clause 11.1 )

TYPE OF SAMPLING PLAN	CUMU- LATIVE SAMPLE SIZE	ACCEPTABLE QUALITY LEVELS (NORMAL INSPECTION)																												CUMU- LATIVE SAMPLE SIZE						
		< 0.25		0.25		0.40		<del>X</del>		0.65		1.0		1.5		2.5		4.0		6.5		<del>X</del>		10		<del>X</del>		15			<del>X</del>		25		> 25	
		Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re		Ac	Re	Ac	Re		
SINGLE	50	▽	0	1	USE LETTER G	USE LETTER K	USE LETTER J	1	2	2	3	3	4	5	6	7	8	8	9	10	11	12	13	14	15	18	19	21	22	Δ	50					
DOUBLE	32	▽	*	0				2	0	3	1	4	2	5	3	7	3	7	5	9	6	10	7	11	9	14	11	16	Δ	32						
	64			1				2	3	4	4	5	6	7	8	9	11	12	12	13	15	16	18	19	23	24	26	27	64							
MULTIPLE	13	▽	*	#	2	#	2	#	3	#	4	0	4	0	4	0	5	0	6	1	7	1	8	2	9	Δ	13									
	26			#	2	0	3	0	3	1	5	1	6	2	7	3	8	3	9	4	10	6	12	7	14	26										
	39			0	2	0	3	1	4	2	6	3	8	4	9	6	10	7	12	8	13	11	17	13	19	39										
	52			0	3	1	4	2	5	3	7	5	10	6	11	8	13	10	15	12	17	16	22	19	25	52										
	65			1	3	2	4	3	6	5	8	7	11	9	12	11	15	14	17	17	20	22	25	25	29	65										
	78			1	3	3	5	4	6	7	9	10	12	12	14	14	17	18	20	21	23	27	29	31	33	78										
	91			2	3	4	5	6	7	9	10	13	14	14	15	18	19	21	22	25	26	32	33	37	38	91										
		< 0.40	0.40	<del>X</del>	0.65	1.0	1.5	2.5	4.0	6.5	<del>X</del>	10	<del>X</del>	15	<del>X</del>	25	<del>X</del>	> 25																		
ACCEPTABLE QUALITY LEVELS (TIGHTENED INSPECTION)																																				

△ = Use next preceding sample size code letter for which acceptance and rejection numbers are available.

▽ = Use next subsequent sample size code letter for which acceptance and rejection numbers are available.

Ac - Acceptance number

Re = Rejection number.

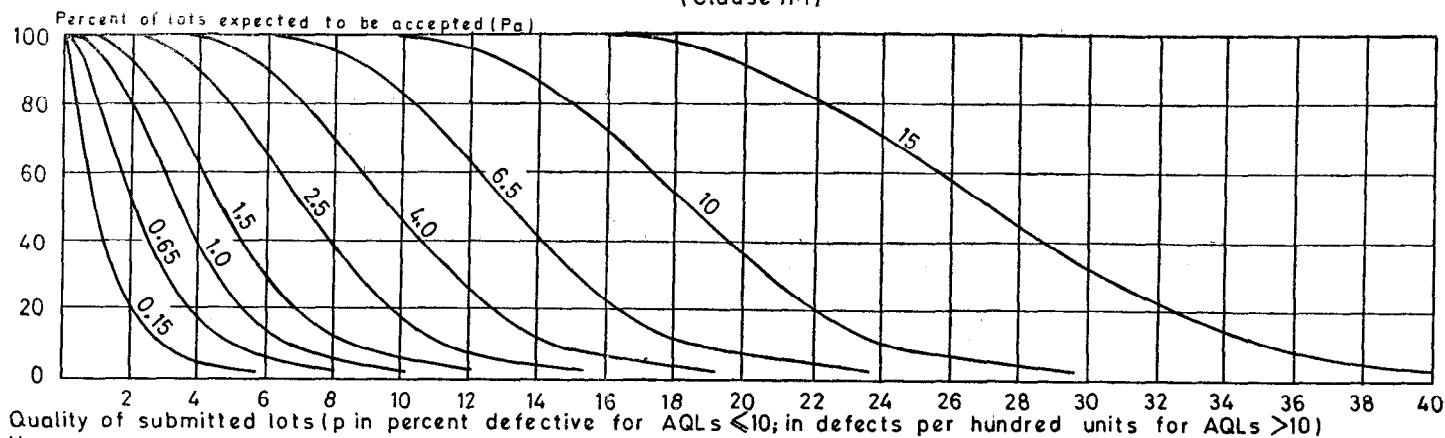
\* = Use single sampling plan above (or alternatively use letter L).

# = Acceptance not permitted at this sample size.

TABLE 10 J TABLES FOR SAMPLE SIZE CODE LETTER J

CHART J-Operating characteristic curves for single sampling plans (curves for double and multiple sampling are matched as closely as practicable).

(Clause 11-1)



NOTE-Figures on curves are Acceptable Quality Levels (AQLs) for normal inspection.

TABLE 10J-1 TABULATED VALUES FOR OPERATING CHARACTERISTIC CURVES FOR SINGLE SAMPLING PLANS  
(Clause 11-1)

Pa	ACCEPTABLE QUALITY LEVELS (NORMAL INSPECTION)																					
	0.15	0.65	1.0	1.5	2.5	4.0	6.5	10	15	0.15	0.65	1.0	1.5	2.5	4.0	6.5	10	15				
	p (in Percent Defective)										p (in Defects per Hundred Units)											
99.0	0.013	0.188	0.550	1.05	2.30	3.72	4.50	6.13	7.88	9.75	0.013	0.186	0.545	1.03	2.23	3.63	4.38	5.96	7.62	9.35	12.9	15.7
95.0	0.064	0.444	1.03	1.73	3.32	5.06	5.98	7.91	9.89	11.9	0.064	0.444	1.02	1.71	3.27	4.98	5.87	7.71	9.61	11.6	15.6	18.6
90.0	0.132	0.666	1.38	2.20	3.98	5.91	6.91	8.95	11.0	13.2	0.131	0.665	1.38	2.18	3.94	5.82	6.79	8.78	10.8	12.9	17.1	20.3
75.0	0.359	1.202	2.16	3.18	5.30	7.50	8.62	10.9	13.2	15.5	0.360	1.20	2.16	3.17	5.27	7.45	8.55	10.8	13.0	15.3	19.9	23.4
50.0	0.863	2.09	3.33	4.57	7.06	9.55	10.8	13.3	15.8	18.3	0.866	2.10	3.34	4.59	7.09	9.59	10.8	13.3	15.8	18.3	23.3	27.1
25.0	1.72	3.33	4.84	6.31	9.14	11.9	13.3	16.0	18.6	21.3	1.73	3.37	4.90	6.39	9.28	12.1	13.5	16.3	19.0	21.8	27.2	31.2
10.0	2.84	4.78	6.52	8.16	11.3	14.2	15.7	18.6	21.4	24.2	2.88	4.86	6.65	8.35	11.6	14.7	16.2	19.3	22.2	25.2	30.9	35.2
5.0	3.68	5.80	7.66	9.39	12.7	15.8	17.3	20.3	23.2	26.0	3.75	5.93	7.87	9.69	13.1	16.4	18.0	21.2	24.3	27.4	33.4	37.8
1.0	5.59	8.00	10.1	12.0	15.6	18.9	20.5	23.6	26.5	29.5	5.76	8.30	10.5	12.6	16.4	20.0	21.8	25.2	28.5	31.8	38.2	42.9
	0.25	1.0	1.5	2.5	4.0	6.5	10	15	20	25	0.25	1.0	1.5	2.5	4.5	6.5	10	15	20	25	30	35
	Acceptable Quality Levels (Tightened Inspection)																					

NOTE- Binomial distribution used for percent defective computations; Poisson for defects per hundred units.

TABLE 10-J-2 SAMPLING PLANS FOR SAMPLE SIZE CODE LETTER J

(Clause 11.1)

TYPE OF SAMPLING PLAN	CUMU-LATIVE SAMPLE SIZE	ACCEPTABLE QUALITY LEVEL (NORMAL INSPECTION)																				CUMU-LATIVE SAMPLE SIZE
		< 0.15	0.15	0.25	✕	0.40	0.65	1.0	1.5	2.5	4.0	✕	6.5	✕	10	✕	15	> 15				
		Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re	Ac Re				
SINGLE	80	▽	0 1	USE LETTER H	USE LETTER L	USE LETTER K	1 2 2 3 3 4 5 6 7 8 8 9 10 11 12 13 14 15 18 19 21 22	Δ	80													
DOUBLE	50	▽	*				0 2 0 3 1 4 2 5 3 7 3 7 5 9 6 10 7 11 9 14 11 16	Δ	50													
	100						1 2 3 4 4 5 6 7 8 9 11 12 12 13 15 16 18 19 23 24 26 27		100													
MULTIPLE	20	▽	*				# 2 # 2 # 3 # 4 0 4 0 4 0 5 0 6 1 7 1 8 2 9	Δ	20													
	40						# 2 0 3 0 3 1 5 1 6 2 7 3 8 3 9 4 10 6 12 7 14		40													
	60						0 2 0 3 1 4 2 6 3 8 4 9 6 10 7 12 8 13 11 17 13 19		60													
	80						0 3 1 4 2 5 3 7 5 10 6 11 8 13 10 15 12 17 16 22 19 25		80													
	100						1 3 2 4 3 6 5 8 7 11 9 12 11 15 14 17 17 20 22 25 25 29		100													
	120						1 3 3 5 4 6 7 9 10 12 12 14 14 17 18 20 21 23 27 29 31 33		120													
	140						2 3 4 5 6 7 9 10 13 14 14 15 18 19 21 22 25 26 32 33 37 38		140													
		< 0.25	0.25	✕	0.40	0.5	1.0	1.5	2.5	4.0	✕	6.5	✕	10	✕	15	✕	> 15				
ACCEPTABLE QUALITY LEVELS (TIGHTENED INSPECTION)																						

Δ = Use next preceding sample size code letter for which acceptance and rejection numbers are available.

▽ = Use next subsequent sample size code letter for which acceptance and rejection numbers are available.

Ac = Acceptance number.

Re = Rejection number.

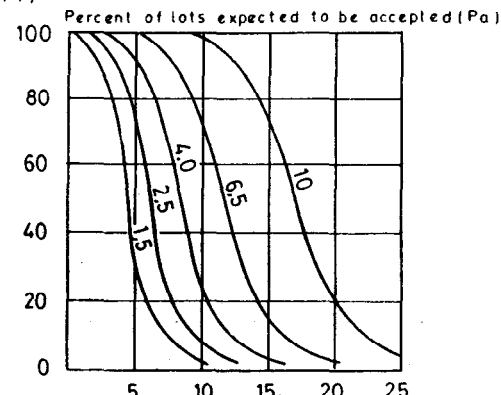
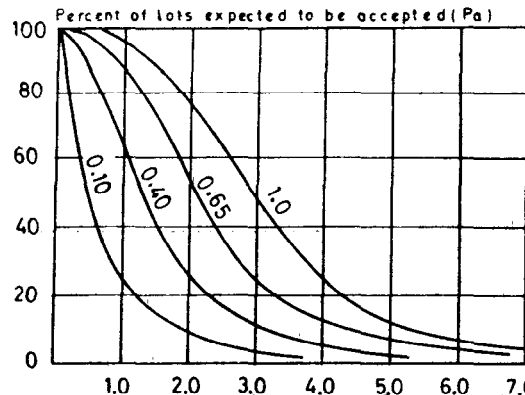
\* = Use single sampling plan above (or alternatively use letter M).

\* = Acceptance not permitted at this sample size.

TABLE 10K TABLES FOR SAMPLE SIZE CODE LETTER K

CHART K-Operating characteristic curves for single sampling plans (Curves for single and multiple sampling are matched as closely as practicable)

(Clause 11.1)



NOTE—Figures on curves are Acceptable Quality Levels (AQLs) for normal inspection

TABLE 10K-1 TABULATED VALUES FOR OPERATING CHARACTERISTIC CURVES FOR SINGLE SAMPLING PLANS (Clause 11.1)

$P_a$	ACCEPTABLE QUALITY LEVELS (NORMAL INSPECTION)											
	0.10	0.40	0.65	1.0	1.5	2.5		4.0		6.5		10
	p (in Percent Defective or Defects per Hundred Units)											
99.0	0.0081	0.119	0.349	0.658	1.43	2.33	2.81	3.82	4.88	5.98	8.28	10.1
95.0	0.0410	0.284	0.654	1.09	2.09	3.19	3.76	4.94	6.15	7.40	9.95	11.9
90.0	0.0840	0.426	0.882	1.40	2.52	3.73	4.35	5.62	6.92	8.24	10.9	13.0
75.0	0.230	0.769	1.382	2.03	3.38	4.77	5.47	6.90	8.34	9.79	12.7	14.9
50.0	0.554	1.34	2.14	2.94	4.54	6.14	6.94	8.53	10.1	11.7	14.9	17.3
25.0	1.11	2.15	3.14	4.09	5.94	7.75	8.64	10.4	12.2	13.9	17.4	20.0
10.0	1.84	3.11	4.26	5.35	7.42	9.42	10.4	12.3	14.2	16.1	19.8	22.5
5.0	2.40	3.80	5.04	6.20	8.41	10.5	11.5	13.6	15.6	17.5	21.4	24.2
1.0	3.68	5.31	6.73	8.04	10.5	12.8	18.3	16.1	18.3	20.4	24.5	27.5
	0.15	0.65	1.0	1.5	2.5		4.0		6.5		10	
	Acceptable Quality Levels (Tightened Inspection)											

NOTE—All values given in above table based on Poisson distribution as an approximation to the Binomial

TABLE 10-K-2 SAMPLING PLANS FOR SAMPLE SIZE CODE LETTER K  
( Clause:11.1)

TYPE OF SAMPLING PLAN	CUMU-LATIVE SAMPLE SIZE	ACCEPTABLE QUALITY LEVELS (NORMAL INSPECTION)																																CUMU-LATIVE SAMPLE SIZE		
		<0.10		0.10		0.15		X		0.25		0.40		0.65		1.0		1.5		2.5		X		4.0		X		6.5		X		10			>10	
		Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re			
SINGLE	125	∇	0	1	USE LETTER J	USE LETTER M	USE LETTER L	1	2	2	3	3	4	5	6	7	8	8	9	10	11	12	13	14	15	18	19	21	22	Δ	125					
DOUBLE	80	∇	*	0				2	0	3	1	4	2	5	3	7	3	7	5	9	6	10	7	11	9	14	11	16	Δ	80						
	160			1				2	3	4	4	5	6	7	8	9	11	12	12	13	15	16	18	19	23	24	26	27		160						
MULTIPLE	32	∇	*	#				2	#	2	#	3	#	4	0	4	0	4	0	5	0	6	1	7	1	8	2	9	Δ	32						
	64			#	2	0	3	0	3	1	5	1	6	2	7	3	8	3	9	4	10	6	12	7	14		64									
	96			0	2	0	3	1	4	2	6	3	8	4	9	6	10	7	12	8	13	11	17	13	19		96									
	128			0	3	1	4	2	5	3	7	5	10	6	11	8	13	10	15	12	17	16	22	19	25		128									
	160			1	3	2	4	3	6	5	8	7	11	9	12	11	15	14	17	17	20	22	25	25	29		160									
	192			1	3	3	5	4	6	7	9	10	12	12	14	14	17	18	20	21	23	27	29	31	33		192									
	224			2	3	4	5	6	7	9	10	13	14	14	15	18	19	21	22	25	26	32	33	37	38		224									
		<0.15	0.15	X	0.25	0.40	0.65	1.0	1.5	2.5	X	4.0	X	6.5	X	10	X	>10																		
ACCEPTABLE QUALITY LEVELS (TIGHTENED INSPECTION)																																				

Δ = Use next preceding sample size code letter for which acceptance and rejection numbers are available.

∇ = Use next subsequent sample size code letter for which acceptance and rejection numbers are available.

Ac = Acceptance number.

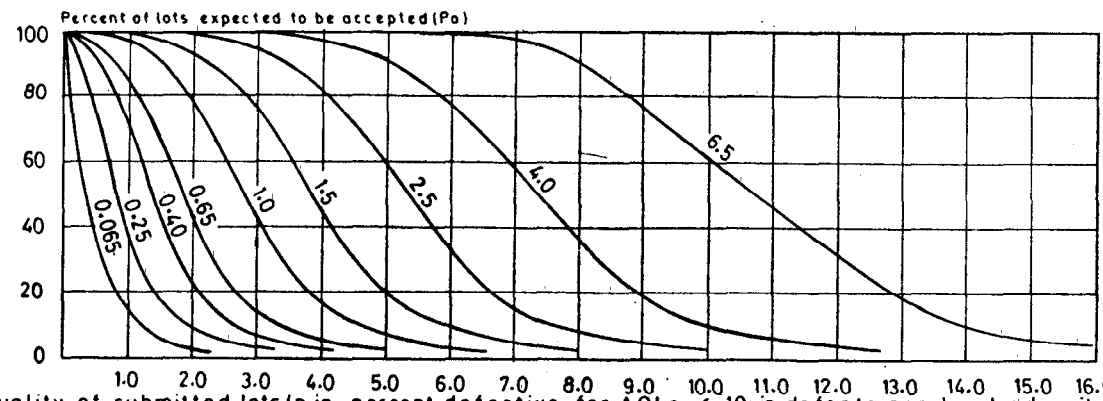
Re = Rejection number.

\* = Use single sampling plan above (or alternatively use letter N).

# = Acceptance not permitted at this sample size.

TABLE 10L TABLES FOR SAMPLE SIZE CODE LETTER L  
CHART L-Operating characteristic curves for single sampling plans (curves for double and multiple sampling are matched as closely as practicable).

(Clause 11.1)



Quality of submitted lots (p in percent defective for AQLs ≤ 10; in defects per hundred units for AQLs > 10)

NOTE—Figures on curves are Acceptable Quality Levels (AQLs) for normal inspection.

TABLE 10 L-1 TABULATED VALUES FOR OPERATING CHARACTERISTIC CURVES FOR SINGLE SAMPLING PLANS  
(Clause 11.1)

Pa	ACCEPTABLE QUALITY LEVELS (NORMAL INSPECTION)											
	0.065	0.25	0.40	0.65	1.0	1.5		2.5		4.0		6.5
p (in Percent Defective or Defects per Hundred Units)												
99.0	0.0051	0.075	0.218	0.412	0.893	1.45	1.75	2.39	3.05	3.74	5.17	6.29
95.0	0.0256	0.178	0.409	0.683	1.31	1.99	2.35	3.09	3.85	4.62	6.22	7.45
90.0	0.0525	0.266	0.551	0.873	1.58	2.33	2.72	3.51	4.32	5.15	6.84	8.12
75.0	0.144	0.481	0.864	1.27	2.11	2.98	3.42	4.31	5.21	6.12	7.95	9.34
50.0	0.347	0.839	1.34	1.84	2.84	3.84	4.33	5.33	6.33	7.33	9.33	10.8
25.0	0.693	1.35	1.96	2.56	3.71	4.84	5.40	6.51	7.61	8.70	10.9	12.5
10.0	1.15	1.95	2.66	3.34	4.64	5.89	6.50	7.70	8.89	10.1	12.4	14.1
5.0	1.50	2.37	3.15	3.88	5.26	6.57	7.22	8.48	9.72	10.9	13.3	15.1
1.0	2.30	2.32	4.20	5.02	6.55	8.00	8.70	10.1	11.4	12.7	15.3	17.2
	0.10	0.40	0.65	1.0	1.5		2.5		4.0		6.5	
Acceptable Quality Levels (Tightened Inspection)												

NOTE—All values given in above table based on Poisson distribution as an approximation to the Binomial.



TABLE 10-L-2 SAMPLING PLANS FOR SAMPLE SIZE CODE LETTER L  
(Clause: 11.1)

TYPE OF SAMPLING PLAN	CUMULATIVE SAMPLE SIZE	ACCEPTABLE QUALITY LEVELS (NORMAL INSPECTION)																								CUMULATIVE SAMPLE SIZE										
		<0.065		0.065		0.10		X		0.15		0.25		0.40		0.65		1.0		1.5		X		2.5			X		4.0		X		6.5		>6.5	
		Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re		Ac	Re	Ac	Re	Ac	Re	Ac	Re		
SINGLE	200	∇	0	1	USE LETTER K	USE LETTER N	USE LETTER M	1	2	2	3	3	4	5	6	7	8	8	9	10	11	12	13	14	15	18	19	21	22	Δ	200					
DOUBLE	125	∇	*	0				2	0	3	1	4	2	5	3	7	3	7	5	9	6	10	7	11	9	14	11	16	Δ	125						
	250			1				2	3	4	4	5	6	7	8	9	11	12	12	13	15	16	18	19	23	24	26	27	250							
MULTIPLE	50	∇	*	#	2	#	2	#	3	#	4	0	4	0	4	0	5	0	6	1	7	1	8	2	9	Δ	50									
	100	#	2	0	3	0	3	1	5	1	6	2	7	3	8	3	9	4	10	6	12	7	14	100												
	150	0	2	0	3	1	4	2	6	3	8	4	9	6	10	7	12	8	13	11	17	13	19	150												
	200	0	3	1	4	2	5	3	7	5	10	6	11	8	13	10	15	12	17	16	22	19	25	200												
	250	1	3	2	4	3	6	5	8	7	11	9	12	11	15	14	17	17	20	22	25	25	29	250												
	300	1	3	3	5	4	6	7	9	10	12	12	14	14	17	18	20	21	23	27	29	31	33	300												
	350	2	3	4	5	6	7	9	10	13	14	14	15	18	19	21	22	25	26	32	33	37	38	350												
		<0.10	0.10	X	0.15	0.25	0.40	0.65	1.0	1.5	X	2.5	X	4.0	X	6.5	X	>6.5																		
																					ACCEPTABLE QUALITY LEVELS (TIGHTENED INSPECTION)															

Δ Use next preceding sample size code letter for which acceptance and rejection numbers are available.

∇ Use next subsequent sample size code letter for which acceptance and rejection numbers are available.

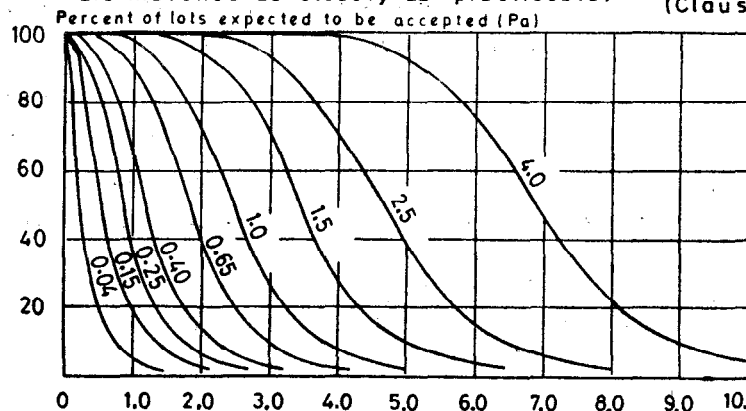
Ac Acceptance number.

Re Rejection number.

\* Use single sampling plan above (or alternatively use letter P).

# Acceptance not permitted at this sample size.

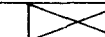


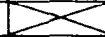
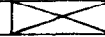


TABLE 10M TABLES FOR SAMPLE SIZE CODE LETTER M  
 CHART M—Operating characteristic curves for single sampling plans (curves for double and multiple sampling are matched as closely as practicable) (Clause 11.1)



Quality of submitted lots ( $p$  in percent defective for AQLs  $\leq 10$ ; in defects per hundred units for AQLs  $> 10$ )

NOTE—Figures on curves are Acceptable Quality Levels (AQLs) for normal inspection

TABLE 10M-1 TABULATED VALUES FOR OPERATING CHARACTERISTIC CURVES FOR SINGLE SAMPLING PLANS  
 (Clause 11.1)

$P_a$	ACCEPTABLE QUALITY LEVELS (NORMAL INSPECTION)											
	0.040	0.15	0.25	0.40	0.65	1.0		1.5		2.5		4.0
	$p$ (in Percent Defective or Defects per Hundred Units)											
99.0	0.0032	0.047	0.138	0.261	0.566	0.922	1.11	1.51	1.94	2.38	3.28	3.99
95.0	0.0163	0.112	0.259	0.433	0.289	1.26	1.49	1.96	2.44	2.94	3.95	4.73
90.0	0.0333	0.168	0.349	0.533	1.00	1.48	1.72	2.23	2.75	3.27	4.34	5.16
75.0	0.0914	0.305	0.580	0.804	1.34	1.89	2.17	2.74	3.31	3.89	5.05	5.93
50.0	0.220	0.532	0.848	1.17	1.80	2.43	2.75	3.39	4.02	4.66	5.93	6.88
25.0	0.440	0.854	1.24	1.62	2.36	3.07	3.43	4.13	4.83	5.52	6.90	7.92
10.0	0.731	1.23	1.69	2.12	2.94	3.74	4.13	4.89	5.65	6.39	7.86	8.95
5.0	0.951	1.51	2.00	2.46	3.34	4.17	4.58	5.38	6.17	6.95	8.47	9.60
1.0	1.46	2.11	2.67	3.19	4.16	5.08	5.53	6.40	7.25	8.08	9.71	10.9
	0.065	0.25	0.40	0.65	1.0		1.5		2.5		4.0	
	Acceptable Quality Levels (Tightened Inspection)											

NOTE—All values given in above table based on Poisson distribution as an approximation to the Binomial.

TABLE 10-M-2 SAMPLING PLANS FOR SAMPLE SIZE CODE LETTER M  
(Clause: 11.1)

TYPE OF SAMPLING PLAN	CUMU-LATIVE SAMPLE SIZE	ACCEPTABLE QUALITY LEVELS (NORMAL INSPECTION)																																CUMU-LATIVE SAMPLE SIZE		
		<0.040		0.040		0.065		X		0.10		0.15		0.25		0.40		0.65		1.0		X		1.5		X		2.5		X		4.0			>4.0	
		Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re			
SINGLE	315	∇	0	1	USE LETTER L	USE LETTER P	USE LETTER N	1	2	2	3	3	4	5	6	7	8	8	9	10	11	12	13	14	15	18	19	21	22	Δ	315					
DOUBLE	200	∇	*	0				2	0	3	1	4	2	5	3	7	3	7	5	9	6	10	7	11	9	14	11	16	Δ	200						
	400			1				2	3	4	4	5	6	7	8	9	11	12	12	13	15	16	18	19	23	24	26	27		400						
MULTIPLE	80	∇	*	#	2	#	2	#	3	#	4	0	4	0	4	0	5	0	6	1	7	1	8	2	9	Δ	80									
	160			#	2	0	3	0	3	1	5	1	6	2	7	3	8	3	9	4	10	6	12	7	14		160									
	240			0	2	0	3	1	4	2	6	3	8	4	9	6	10	7	12	8	13	11	17	13	19		240									
	320			0	3	1	4	2	5	3	7	5	10	6	11	8	13	10	15	12	17	16	22	19	25		320									
	400			1	3	2	4	3	6	5	8	7	11	9	12	11	15	14	17	17	20	22	25	25	29		400									
	480			1	3	3	5	4	6	7	9	10	12	12	14	14	17	18	20	21	23	27	29	31	33		480									
	560			2	3	4	5	6	7	9	10	13	14	14	15	18	19	21	22	25	26	32	33	37	38		560									
		<0.065	0.065	X	0.10	0.15	0.25	0.40	0.65	1.0	X	1.5	X	2.5	X	4.0	X	>4.0																		
ACCEPTABLE QUALITY LEVELS (TIGHTENED INSPECTION)																																				

Δ = Use next preceding sample size code letter for which acceptance and rejection numbers are available

∇ = Use next subsequent sample size code letter for which acceptance and rejection numbers are available

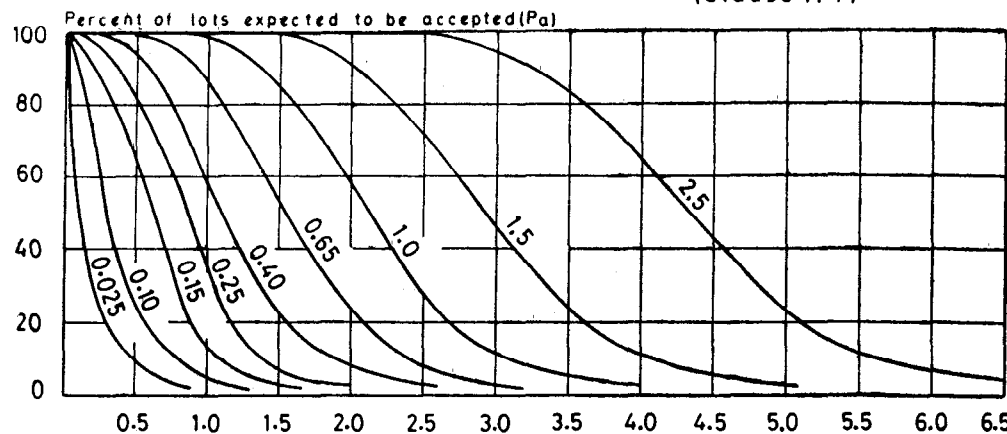
Ac = Acceptance number

Re = Rejection number

\* = Use single sampling plan above (or alternatively use letter Q).

# = Acceptance not permitted at this sample size

TABLE 10N TABLES FOR SAMPLE SIZE CODE LETTER N  
 CHART N-Operating characteristic curves for single sampling plans (curves for double and multiple sampling are matched as closely as practicable). (Clause 11-1)



Quality of submitted lots (p in percent defective for AQLs  $\leq 10$ ; in defects per hundred units for AQLs  $> 10$ )  
 NOTE - Figures on curves are Acceptable Quality Levels (AQLs) for normal inspection.

TABLE 10N-1 TABULATED VALUES FOR OPERATING CHARACTERISTIC CURVES FOR SINGLE SAMPLING PLANS  
 (Clause 11-1)

$P_a$	ACCEPTABLE QUALITY LEVELS (NORMAL INSPECTION)											
	0.025	0.10	0.15	0.25	0.40	0.65	<del>X</del>	1.0	<del>X</del>	1.5	<del>X</del>	2.5
	p (in Percent Defective or Defects per Hundred Units)											
99.0	0.0020	0.030	0.087	0.165	0.357	0.581	0.701	0.954	1.22	1.50	2.07	2.51
95.0	0.0103	0.071	0.164	0.273	0.523	0.796	0.939	1.23	1.54	1.85	2.49	2.98
90.0	0.0210	0.106	0.220	0.349	0.630	0.931	1.09	1.40	1.73	2.06	2.73	3.25
75.0	0.0576	0.192	0.345	0.507	0.844	1.19	1.37	1.72	2.08	2.45	3.18	3.74
50.0	0.139	0.336	0.535	0.734	1.13	1.53	1.73	2.13	2.53	2.93	3.73	4.33
25.0	0.277	0.539	0.784	1.02	1.48	1.94	2.16	2.60	3.04	3.48	4.35	4.99
10.0	0.461	0.778	1.06	1.34	1.86	2.35	2.60	3.08	3.56	4.03	4.95	5.64
5.0	0.599	0.949	1.26	1.55	2.10	2.63	2.89	3.39	3.89	4.38	5.34	6.05
1.0	0.921	1.328	1.68	2.01	2.62	3.20	3.48	4.03	4.56	5.09	6.12	6.87
	0.040	0.15	0.25	0.40	0.65	<del>X</del>	1.0	<del>X</del>	1.5	<del>X</del>	2.5	<del>X</del>
	Acceptable Quality Levels (Tightened Inspection)											

NOTE - All values given in above table based on Poisson distribution as an approximation to the Binomial.

TABLE 10-N-2 SAMPLING PLANS FOR SAMPLE SIZE CODE LETTER N  
(Clause:11.1)

TYPE OF SAMPLING PLAN	CUMU- LATIVE SAMPLE SIZE	ACCEPTABLE QUALITY LEVELS (NORMAL INSPECTION)																				CUMU- LATIVE SAMPLE SIZE														
		<0.025		0.025		0.040		X		0.065		0.10		0.15		0.25		0.40		0.65			X		1.0		X		1.5		X		2.5		>2.5	
		Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re		Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re		
SINGLE	500	▽	0	1	USE LETTER M	USE LETTER Q	USE LETTER P	1	2	2	3	3	4	5	6	7	8	8	9	10	11	12	13	14	15	18	19	21	22	△	500					
DOUBLE	315	▽	*	0				2	0	3	1	4	2	5	3	7	3	7	5	9	6	10	7	11	9	14	11	16	△	315						
	630			1				2	3	4	4	5	6	7	8	9	11	12	12	13	15	16	18	19	23	24	26	27		630						
MULTIPLE	125	▽	*	#	2	#	2	#	3	#	4	0	4	0	4	0	5	0	6	1	7	1	8	2	9	△	125									
	250			#	2	0	3	0	3	1	5	1	6	2	7	3	8	3	9	4	10	6	12	7	14		250									
	375			0	2	0	3	1	4	2	6	3	8	4	9	6	10	7	12	8	13	11	17	13	19		375									
	500			0	3	1	4	2	5	3	7	5	10	6	11	8	13	10	15	12	17	16	22	19	25		500									
	625			1	3	2	4	3	6	5	8	7	11	9	12	11	15	14	17	17	20	22	25	25	29		625									
	750			1	3	3	5	4	6	7	9	10	12	12	14	14	17	18	20	21	23	27	29	31	33		750									
	875			2	3	4	5	6	7	9	10	13	14	14	15	18	19	21	22	25	26	32	33	37	38		875									
		<0.040	0.040	X	0.065	0.10	0.15	0.25	0.40	0.65	X	1.0	X	1.5	X	2.5	X	>2.5	ACCEPTABLE QUALITY LEVELS (TIGHTENED INSPECTION)																	

△ = Use next preceding sample size code letter for which acceptance and rejection numbers are available.

▽ = Use next subsequent sample size code letter for which acceptance and rejection numbers are available.

Ac = Acceptance number.

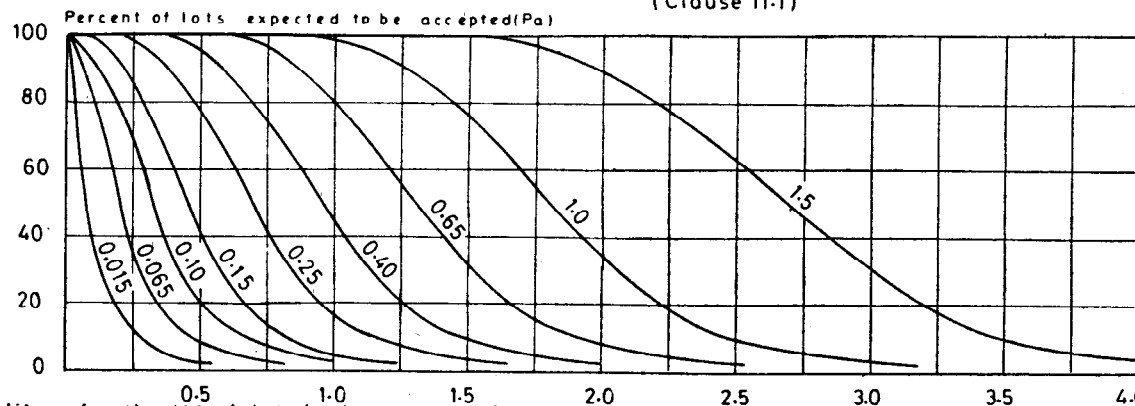
Re = Rejection number.

\* = Use single sampling plan above (or alternatively use letter R).

# = Acceptance not permitted at this sample size.

TABLE 10 P TABLES FOR SAMPLE SIZE CODE LETTER P  
 CHART P-Operating characteristic curves for single sampling plans (curves for double and multiple sampling are matched as closely as practicable)

(Clause 11.1)



NOTE—Figures on curves are Acceptable Quality Levels (AQLs) for normal inspection

TABLE 10 P-1 TABULATED VALUES FOR OPERATING CHARACTERISTIC CURVES FOR SINGLE SAMPLING PLANS  
 (Clause 11.1)

Pa	ACCEPTABLE QUALITY LEVELS (NORMAL INSPECTION)											
	0.015	0.065	0.10	0.15	0.25	0.40		0.65		1.0		1.5
	p (in Percent Defective or Defects per Hundred Units)											
99.0	0.0013	0.0186	0.055	0.103	0.223	0.363	0.438	0.596	0.762	0.935	1.29	1.57
95.0	0.0064	0.0444	0.102	0.171	0.327	0.498	0.587	0.771	0.961	1.16	1.56	1.86
90.0	0.0131	0.0665	0.138	0.218	0.394	0.582	0.679	0.878	1.08	1.29	1.71	2.03
75.0	0.0360	0.120	0.216	0.317	0.527	0.745	0.855	1.08	1.30	1.53	1.99	2.34
50.0	0.0866	0.210	0.334	0.459	0.709	0.959	1.08	1.33	1.58	1.83	2.33	2.71
25.0	0.173	0.337	0.490	0.639	0.928	1.21	1.35	1.63	1.90	2.18	2.72	3.12
10.0	0.288	0.486	0.665	0.835	1.16	1.47	1.62	1.93	2.22	2.52	3.09	3.52
5.0	0.375	0.593	0.787	0.969	1.31	1.64	1.80	2.12	2.43	2.74	3.34	3.78
1.0	0.576	0.830	1.05	1.26	1.64	2.00	2.18	2.52	2.85	3.18	3.82	4.29
	0.025	0.10	0.15	0.25	0.40		0.65		1.0		1.5	
	Acceptable Quality Levels (Tightened Inspection)											

NOTE—All values given in above table based on Poisson distribution as an approximation to the Binomial

TABLE 10-P-2 SAMPLING PLANS FOR SAMPLE SIZE CODE LETTER P

(Clause: 11.1)

TYPE OF SAMPLING PLAN	CUMULATIVE SAMPLE SIZE	ACCEPTABLE QUALITY LEVELS (NORMAL INSPECTION)																								CUMULATIVE SAMPLE SIZE										
		0.010		0.015		0.025		X		0.040		0.065		0.10		0.15		0.25		0.40		X		0.65			X		1.0		X		1.5		>1.5	
		Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re		Ac	Re	Ac	Re	Ac	Re	Ac	Re		
SINGLE	800	∇	0	1	USE LETTER N	USE LETTER R	USE LETTER Q	1	2	2	3	3	4	5	6	7	8	8	9	10	11	12	13	14	15	18	19	21	22	Δ	800					
DOUBLE	500	∇	*	0				2	0	3	1	4	2	5	3	7	3	7	5	9	6	10	7	11	9	14	11	16	Δ	500						
	1000	1		2				3	4	4	5	6	7	8	9	11	12	12	13	15	16	18	19	23	24	26	27	1000								
MULTIPLE	200	∇	*	#	2	#	2	#	3	#	4	0	4	0	4	0	5	0	6	1	7	1	8	2	9	Δ	200									
	400	#	2	0	3	0	3	1	5	1	6	2	7	3	8	3	9	4	10	6	12	7	14	400												
	600	0	2	0	3	1	4	2	6	3	8	4	9	6	10	7	12	8	13	11	17	13	19	600												
	800	0	3	1	4	2	5	3	7	5	10	6	11	8	13	10	15	12	17	16	22	19	25	800												
	1000	1	3	2	4	3	6	5	8	7	11	9	12	11	15	14	17	17	20	22	25	25	29	1000												
	1200	1	3	3	5	4	6	7	9	10	12	12	14	14	17	18	20	21	23	27	29	31	33	1200												
	1400	2	3	4	5	6	7	9	10	13	14	14	15	18	19	21	22	25	26	32	33	37	38	1400												
		<0.025	0.025	X	0.040	0.065	0.10	0.15	0.25	0.40	X	0.65	X	1.0	X	1.5	X	>1.5																		
ACCEPTABLE QUALITY LEVELS (TIGHTENED INSPECTION)																																				

Δ = Use next preceding sample size code letter for which acceptance and rejection numbers are available

∇ = Use next subsequent sample size code letter for which acceptance and rejection numbers are available.

Ac = Acceptance number.

Re = Rejection number

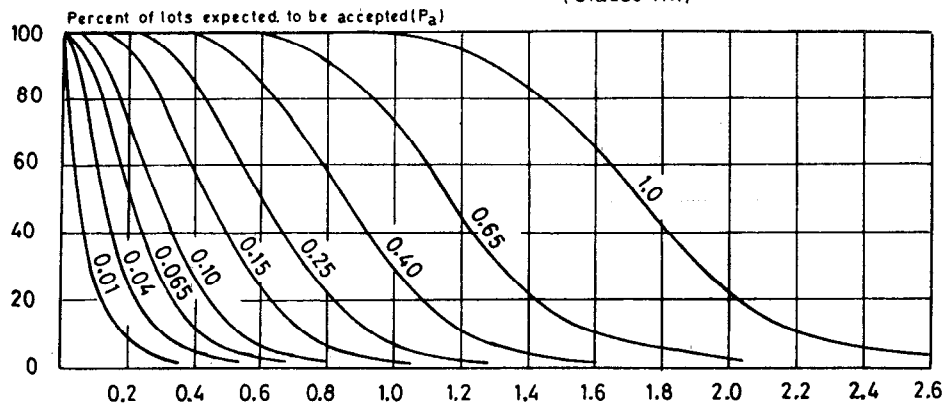
\* = Use single sampling plan above.

# = Acceptance not permitted at this sample size.

TABLE 10Q TABLES FOR SAMPLE SIZE CODE LETTER Q

CHART. Q - Operating characteristic curves for single sampling plans (Curves for double and multiple sampling are matched as closely as practicable)







(Clause 11.1)



Quality of submitted lots ( $p$  in percent defective for AQLs  $\leq 10$ ; in defects per hundred units for AQLs  $> 10$ )

NOTE - Figures on curves are Acceptable Quality Levels (AQLs) for normal inspection.

TABLE 10 Q-1 TABULATED VALUES FOR OPERATING CHARACTERISTIC CURVES FOR SINGLE SAMPLING PLANS (Clause 11.1)

$P_a$	ACCEPTABLE QUALITY LEVELS (NORMAL INSPECTION)											
	0.010	0.040	0.065	0.10	0.15	0.25		0.40		0.65		1.0
	$p$ (in Percent Defective or Defects per Hundred Units)											
99.0	0.00081	0.0119	0.0349	0.0656	0.143	0.232	0.281	0.382	0.488	0.598	0.828	1.01
95.0	0.00410	0.0284	0.0654	0.109	0.209	0.318	0.376	0.494	0.615	0.740	0.995	1.19
90.0	0.00840	0.0426	0.0882	0.140	0.252	0.372	0.435	0.562	0.692	0.824	1.09	1.30
75.0	0.0230	0.0769	0.138	0.203	0.338	0.476	0.547	0.690	0.834	0.979	1.27	1.49
50.0	0.0554	0.134	0.214	0.294	0.454	0.614	0.694	0.853	1.01	1.17	1.49	1.73
25.0	0.111	0.215	0.314	0.409	0.594	0.775	0.864	1.04	1.22	1.39	1.74	2.00
10.0	0.184	0.310	0.426	0.534	0.742	0.942	1.04	1.23	1.42	1.61	1.98	2.25
5.0	0.240	0.380	0.504	0.620	0.841	1.05	1.15	1.36	1.56	1.75	2.14	2.42
1.0	0.368	0.531	0.672	0.804	1.05	1.28	1.83	1.61	1.83	2.04	2.45	2.75
	0.015	0.065	0.10	0.15	0.25		0.40		0.65		1.0	
	Acceptable Quality Levels (Tightened Inspection)											

NOTE - All values given in above table based on Poisson distribution as an approximation to the binomial



TABLE 10-Q-2 SAMPLING PLANS FOR SAMPLE SIZE CODE LETTER Q

(Clause: 11.1)

TYPE OF SAMPLING PLAN	CUMU-LATIVE SAMPLE SIZE	ACCEPTABLE QUALITY LEVELS (NORMAL INSPECTION)																				CUMU-LATIVE SAMPLE SIZE									
		✕	0.010		0.015		✕	0.025		0.040		0.065		0.10		0.15		0.25		✕	0.40		✕	0.65		✕	1.0		>1.0		
		Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re		Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac
SINGLE	1 250	USE LETTER R	0	1	USE LETTER P	USE LETTER S	USE LETTER R	1	2	2	3	3	4	5	6	7	8	8	9	10	11	12	13	14	15	18	19	21	22	Δ	1 250
DOUBLE	800		*	0				2	0	3	1	4	2	5	3	7	3	7	5	9	6	10	7	11	9	14	11	16	Δ	800	
	1 600		*	1				2	3	4	4	5	6	7	8	9	11	12	12	13	15	16	18	19	23	24	26	27	1 600		
MULTIPLE	315		*	#				2	#	2	#	3	#	4	0	4	0	4	0	5	0	6	1	7	1	8	2	9	Δ	315	
	630		*	#				2	0	3	0	3	1	5	1	6	2	7	3	8	3	9	4	10	6	12	7	14	630		
	945		*	0				2	0	3	1	4	2	6	3	8	4	9	6	10	7	12	8	13	11	17	13	19	945		
	1 260	*	0	3	1	4	2	5	3	7	5	10	6	11	8	13	10	15	12	17	16	22	19	25	1 260						
	1 575	*	1	3	2	4	3	6	5	8	7	11	9	12	11	15	14	17	17	20	22	25	25	29	1 575						
	1 890	*	1	3	3	5	4	6	7	9	10	12	12	14	14	17	18	20	21	23	27	29	31	33	1 890						
	2 205	*	2	3	4	5	6	7	9	10	13	14	14	15	18	19	21	22	25	26	32	33	37	38	2 205						
		0.010	0.015	✕	0.025	0.040	0.065	0.10	0.15	0.25	✕	0.40	✕	0.65	✕	1.0	✕	>1.0													
ACCEPTABLE QUALITY LEVELS (TIGHTENED INSPECTION)																															

Δ = Use next preceding sample size code letter for which acceptance and rejection numbers are available.

Ac = Acceptance number

Re = Rejection number.

\* = Use single sampling plan above.

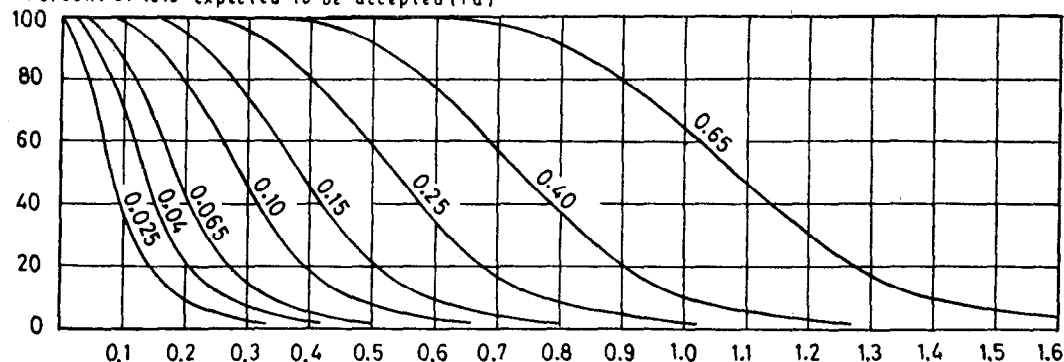
# = Acceptance not permitted at this sample size.

TABLE 10R TABLES FOR SAMPLE SIZE CODE LETTER R

CHART R- Operating characteristic curves for single sampling plans (curves for double and multiple sampling are matched as closely as practicable)

Percent of lots expected to be accepted ( $P_a$ )

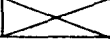


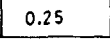
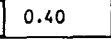
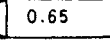
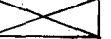
(Clause 11.1)



Quality of submitted lots ( $p$  in percent defective for  $AQLs \leq 10$ ; in defects per hundred units for  $AQLs > 10$ )

NOTE—Figures on curves are Acceptable Quality Levels (AQLs) for normal inspection.

TABLE 10R-1 TABULATED VALUES FOR OPERATING CHARACTERISTIC CURVES FOR SINGLE SAMPLING PLANS  
(Clause 11.1)

$P_a$	ACCEPTABLE QUALITY LEVELS (NORMAL INSPECTION)										
	0.025	0.040	0.065	0.10	0.15		0.25		0.40		0.65
	$p$ (in Percent Defective or Defects per Hundred Units)										
99.0	0.0074	0.0218	0.0412	0.0892	0.145	0.175	0.239	0.305	0.374	0.517	0.629
95.0	0.0178	0.0409	0.0683	0.131	0.199	0.235	0.309	0.385	0.462	0.622	0.745
90.0	0.0266	0.0551	0.0873	0.158	0.233	0.272	0.351	0.432	0.515	0.684	0.812
75.0	0.0481	0.0868	0.127	0.211	0.298	0.342	0.431	0.521	0.612	0.795	0.934
50.0	0.0839	0.134	0.184	0.284	0.384	0.433	0.533	0.633	0.733	0.933	1.08
25.0	0.135	0.196	0.256	0.371	0.484	0.540	0.651	0.761	0.870	1.09	1.25
10.0	0.195	0.266	0.334	0.464	0.589	0.650	0.770	0.889	1.01	1.24	1.41
5.0	0.237	0.315	0.388	0.526	0.657	0.722	0.848	0.972	1.09	1.33	1.51
1.0	0.332	0.420	0.502	0.655	0.800	0.870	1.02	1.14	1.27	1.53	1.72
	0.040	0.065	0.10	0.15		0.25		0.40		0.65	
	Acceptable Quality Levels (Tightened Inspection)										

NOTE—All values given in above table based on Poisson distribution as an approximation to the Binomial.

TABLE 10-R-2 SAMPLING PLANS FOR SAMPLE SIZE CODE LETTER R  
(Clause: 11.1)

TYPE OF SAMPLING PLAN	CUMU- LATIVE SAMPLE SIZE	ACCEPTABLE QUALITY LEVELS (NORMAL INSPECTION)																												CUMU- LATIVE SAMPLE SIZE				
				0.010		0.015				0.025		0.040		0.065		0.10		0.15				0.25				0.40					0.65		> 0.65	
		Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re		Ac	Re		
SINGLE	2 000	0	1	USE LETTER Q	USE LETTER P	USE LETTER S	1	2	2	3	3	4	5	6	7	8	8	9	10	11	12	13	14	15	18	19	21	22	Δ	2 000				
DOUBLE	1 250	*	0				2	0	3	1	4	2	5	3	7	3	7	5	9	6	10	7	11	9	14	11	16	Δ	1 250					
	2 500		1				2	3	4	4	5	6	7	8	9	11	12	12	13	15	16	18	19	23	24	26	27	2 500						
MULTIPLE	500		#	2	#	2	#	3	#	4	0	4	0	4	0	5	0	6	1	7	1	8	2	9	Δ	500								
	1 000		#	2	0	3	0	3	1	5	1	6	2	7	3	8	3	9	4	10	6	12	7	14	1 000									
	1 500		0	2	0	3	1	4	2	6	3	8	4	9	6	10	7	12	8	13	11	17	13	19	1 500									
	2 000		0	3	1	4	2	5	3	7	5	10	6	11	8	13	10	15	12	17	16	22	19	25	2 000									
	2 500		1	3	2	4	3	6	5	8	7	11	9	12	11	15	14	17	17	20	22	25	25	29	2 500									
	3 000		1	3	3	5	4	6	7	9	10	12	12	14	14	17	18	20	21	23	27	29	31	33	3 000									
	3 500		2	3	4	5	6	7	9	10	13	14	14	15	18	19	21	22	25	26	32	33	37	38	3 500									
		0.010		0.015				0.025		0.040		0.065		0.10		0.15				0.25				0.40				0.65				> 0.65		
ACCEPTABLE QUALITY LEVELS (TIGHTENED INSPECTION)																																		

Δ = Use next preceding sample size code letter for which acceptance and rejection numbers are available.

Ac = Acceptance number

Re = Rejection number

\* = Use single sampling plan above

# = Acceptance not permitted at this sample size.

TABLE 10 S FOR SAMPLE SIZE CODE  
LETTER S  
( Clause 11.1 )

TYPE OF SAMPLING PLAN	CUMULA- TIVE SAMPLE SIZE	ACCEPTABLE QUALITY LEVELS (Normal Inspection)	
		Ac	Re
SIMPLE SINGLE	3 150	1	2
DOUBLE	2 000	0	2
	4 000	1	2
MULTIPLE	800	#	2
	1 600	#	2
	2 400	0	2
	3 200	0	3
	4 000	1	3
	4 800	1	3
	5 600	2	3
		0.025	
		ACCEPTABLE QUALITY LEVELS (Tightened Inspection)	

Ac = Acceptance number

Re = Rejection number

# = Acceptance not permitted at this sample size

**APPENDIX A**( *Clause 0.5* )**INDEX OF TERMS WITH SPECIAL MEANINGS**

Acceptable quality level ( AQL ) **4.2** and **11.1**  
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 Attributes **3.2**  
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 Batch **5.1**  
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 Defect **3.4.1**  
 Defective unit **3.4.2**  
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 Lot **5.1**  
 Lot or batch size **5.3**  
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Major defective **3.4.2.2**  
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# INDIAN STANDARDS

## ON

### RELIABILITY OF ELECTRONIC AND ELECTRICAL COMPONENTS AND EQUIPMENT

IS:

- 1885 ( Part XXXIX )-1979 Electrotechnical vocabulary: Part XXXIX Reliability of electronic and electrical items  
( *first revision* )
- 2612-1965 Recommendation for type approval and sampling procedures for electronic components
- 7354 Guide on reliability of electronic and electrical items:
- ( Part I )-1975 Preliminary reliability considerations
  - ( Part II )-1975 Managerial aspects of reliability
  - ( Part III )-1975 Presentation of reliability data on electronic and electrical components ( or parts )
  - ( Part IV )-1974 Collection of reliability, availability and maintainability data from field performance
  - ( Part V )-1975 Inclusion of lot-by-lot and periodic inspection procedures in specifications for electronic and electrical components ( or parts )
  - ( Part IV )-1983 Inclusion of reliability clauses into specifications for components ( or parts ) ( *first revision* )
- 7690-1975 Mathematical guide to the terms and definitions for reliability of electronic equipment and components ( or parts ) used therein
- 8161 Guide for equipment reliability testing:
- ( Part I )-1976 Principles and procedures
  - ( Part V )-1981 Compliance test plans for success ratio
  - ( Part VI )-1983 Tests for validity of a constant failure rate assumption
  - ( Part VII )-1977 Compliance test plans for failure rate and mean time between failures assuming constant failure rate
  - ( Part XI )-1983 Flow chart describing preparations for and execution of reliability tests
- 9185 Endurance ( life ) test for electronic and electrical components:
- ( Part I )-1979 Thermal endurance
  - ( Part II )-1979 Mechanical endurance
- 9186-1979 Guide for screening of electronic and electrical items
- 9692 Guide on maintainability of equipment:
- ( Part I )-1980 Introduction to maintainability
  - ( Part II )-1980 Maintainability requirements in specifications and contracts
  - ( Part III )-1981 Maintainability programme
- 10139-1982 Presentation of reliability, maintainability and availability predictions